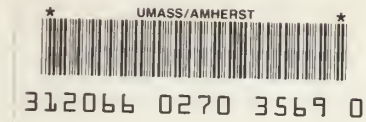


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# 2020 GROWTH STRATEGY

The Development Framework

## FOR CENTRAL MASSACHUSETTS



Central  
Massachusetts  
Regional  
Planning  
Commission





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## DEVELOPMENT FRAMEWORK: 2020 GROWTH STRATEGY FOR CENTRAL MASSACHUSETTS

In accordance with its Bylaws, Section 5: *Adoption and Amendments of Regional Plans* and at a duly noticed Quarterly Commission Meeting with a quorum present on February 10, 2000, the Central Massachusetts Regional Planning Commission adopted the above named plan by a majority vote of those delegates in attendance and through a ballot sent and received from the remainder of the membership.

  
Robert Hassinger, Chairman      Date  
CMRPC

 23 Feb. 2000  
John Reynolds, Chairman      Date  
Physical Development Committee

 Feb 29, 2000  
Attested to by Timothy Wheeler, CMRPC Clerk      Date

## EXECUTIVE SUMMARY

### *2020 Growth Strategy for Central Massachusetts*

During the growth spurt of the mid-1980s, it became clear that most communities in central Massachusetts were caught off guard and unprepared. It was also apparent to CMRPC planners that population and development were spreading westward from the metrowest area, and soon would have a major impact on towns near Interstate 495. This highway corridor has now become the fastest growing area in the state in terms of job creation and housing construction. In response to these pressures and the need for local government guidance, the CMRPC undertook the Development Framework project. The last phase of this project was the completion of the "2020 Growth Strategy for Central Massachusetts".

With the increased demands for public services, a growing school population, and the limitations of Proposition 2½, many communities responded by changing their development strategy. Large-lot residential zoning was adopted to control population growth, and every effort was made to promote commercial/industrial development in the hopes of building their tax base. Land use data for 1971, 1985 and 1990 indicate an alarming trend towards suburban sprawl – scattered, disconnected, low-density housing, stripping of highway corridors with commercial and business

developments, deterioration of city and town centers, and the loss of open space and community character. These findings were confirmed in a Commission survey of local officials and business leaders who indicated this decision was made more often than not by community choice.

Inside the metropolitan center of Worcester, the picture is the reverse. The City is in transition, shifting from a dependency on traditional manufacturing, to one centered on health care, services, and biotechnology. While the City's rate of population decline has stabilized, its share of the region's employment is expected to weaken further as job creation in suburban center locations accelerates. Worcester's major challenges will continue to be the revitalization of its downtown core and the restoration of numerous brownfield sites, the principle areas available for further economic growth.

Forecasts for the future point to steady growth through the year 2020. Population is expected to increase from its current level of about 498,000 to over 565,000. Anticipated growth in both households and employment should add another 49,000 acres of urban development if the current trend towards

sprawl is contained. If not, an additional 20,000 acres of open space, farmlands and forest will likely be consumed. The primary target area for significant growth will be the communities of the Blackstone Valley.

To check sprawl, the Commission has adopted the concept of compact development with a greater concentration of both residential and commercial uses in appropriate village centers. This "smart growth" approach recommends the utilization of certain proven techniques like cluster development by right, use of impact fees, the purchase of open space in collaboration with the state, and the eventual sharing of tax revenues. It also calls for the reform of several zoning laws -- ANR plans and the Anti-Snob zoning law -- which have contributed to uncontrolled development. At a December, 1999 public forum, participants voiced their frustration with the current body of planning laws, insisting that today's playing field is decidedly tilted in favor of the developer. The sum of CMRPC's research and the public input received points clearly to the need to change the "rules" of land use development in Massachusetts.

# **Central Massachusetts Regional Planning Commission**

*35 Harvard St., Worcester, MA 01609*

Robert Hassinger, Commission Chairman  
William H. Newton, AICP, Executive Director

## **Physical Development Committee**

*John Reynolds, Worcester, Chair*  
*Robert Hassinger, Grafton*  
*Richard Escolas, Oxford*  
*Charles Greenough, West Boylston*  
*Arnold Lanni, Southbridge*  
*Peter Coffin, CRCEC, Worcester*  
*Christian Baehrecke, Paxton*  
*R. Christopher Noonan, Mendon*

*Timothy Wheeler, Berlin*  
*Mark Carron, Southbridge*  
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# **2020 Growth Strategy**

## **I. INTRODUCTION**

- **Our Region Today**
- **Regional Planning**

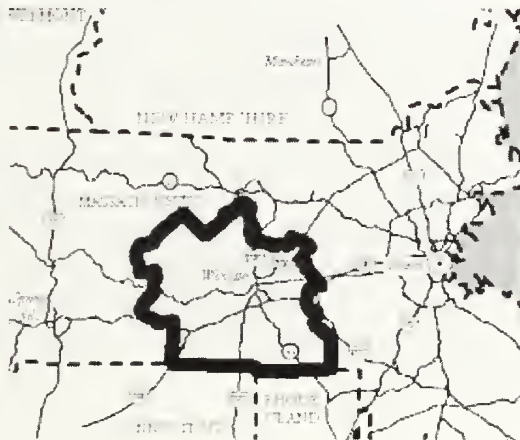


# I. INTRODUCTION

## Our Region Today

Occupying the southern two-thirds of Worcester County, the Central Massachusetts Region, as seen in Figure 1 below, is centered around the metropolitan City of Worcester, the second largest city in New England. Marked geographically by the confluence of I-290/395 and the Massachusetts Turnpike, Worcester and the 39 surrounding towns that constitute the regional community are nearly equidistant (50 miles) from Boston, Providence, and Springfield. Population in 1998 was estimated at over 498,000. More than one million people live within 25 miles of the area's metropolitan center. For travelers to New Hampshire and Maine or south to Connecticut and New York City, this is the "crossroads" of New England.

Figure 1  
Central Massachusetts Region



Central Massachusetts covers portions of six watersheds with four major rivers, the Blackstone, French, Quinebaug and Chicopee, totaling 82 miles in length. More than 2,500 lakes and ponds, occupying some 22,000 acres, are spread throughout the Region. The Wachusett Reservoir, north of Worcester, and the Quabbin Reservoir in the extreme northwest area, are part of a string of reservoirs that supply drinking water to metropolitan Boston communities. Wachusett Mountain, a major ski area at 2,006 feet elevation, is the highest point in the Region. The Town of Rutland, some 1,200 feet above sea level and northwest of the City, marks the geographic center of Massachusetts.



*Wachusett Reservoir*

More than 45 "Fortune 500" companies are headquartered or have offices in the Region. Among them are Norton/St. Gobain Co., maker of abrasives and diamond drill bits; Data General, a Westborough microcomputer company; Wyman-Gordon, builder of steel and iron forgings for the defense department and auto industry; and Digital Equipment Corp., recently acquired by Compaq Computer. SpecTran Corp., a manufacturer of fiber-optic cable in

Sturbridge, is one of the area's top rated growth companies.

The Region's largest employer, however, is the University of Massachusetts Medical Center in Worcester. Nearby is the Massachusetts Biotechnology Research Park which, to date, houses some 20 biotech companies including BASF, a large German firm. In all, some \$140 million has been invested here by the private sector. A new medical facility, the Worcester Medical Center, providing both inpatient and outpatient care, is nearing completion in the City's downtown area.



*Massachusetts Biotechnology Research Park*

Adding to the Region's diversity is an extensive insurance sector led by Allmerica Financial, Provident Insurance and Commerce Insurance, who combined employ more than 6,000 workers. Moreover, the Region is home to eleven major colleges, including the University of Massachusetts Medical School and Tufts University School of Veterinary Medicine<sup>1</sup>. In total, these academic institutions employ more than 7,000 people full time and 2,600 part time.

<sup>1</sup> Other colleges include Anna Maria, Assumption, Becker, Clark, Holy Cross, Nichols, Quinsigamond Community, WPI and Worcester State



*UMass Hospital & Medical School*

## Regional Planning

Seeking to formalize efforts toward coordination of regional growth and development among cities and towns, the state legislature in 1955 enacted Chapter 40B, more commonly known as the "Regional Planning Law". After six communities (Boylston, Paxton, West Boylston, Leicester, Shrewsbury and Worcester) voted to join the Central Massachusetts Regional Planning District, the former State Department of Commerce recognized the Region as "effective for planning purposes" on July 30, 1963. CMRPC membership grew steadily over the next 15 years until it reached its present size of 40 communities.

The Commission is a voting member of the Central Massachusetts Metropolitan Planning Organization, a body that oversees the investment of federal transportation funds in this Region, a state designated regional center for Geographic Information Systems (GIS) services, and a member of the Massachusetts Association of Regional Planning Agencies.

# **2020 Growth Strategy**

## **II. THE DEVELOPMENT FRAMEWORK**

- **Need for a Regional Outlook**
- **Subregional Planning Approach**





## II. THE DEVELOPMENT FRAMEWORK

### Need for a Regional Outlook

Until recently, development in central Massachusetts was steady and manageable. But the growth spurt of the 1980s brought forth a period of rapid change that caught most communities off guard and unprepared. The Region's population grew twice as fast as the state, employment increased by nearly 10% and the area's housing stock jumped by 17 percent. With increased demands for municipal services, a growing school population and the limitations of Proposition 2½, many communities changed direction – to large-lot residential zoning to curb school population growth and the decision to compete for tax-base development by encouraging strip commercial business.

Richard Moe of the National Trust for Historic Preservation terms this scattered, unplanned growth as "sprawl". In a study entitled "Losing Ground",<sup>2</sup> the Massachusetts Audubon Society noted that while the state's population increased by 6% since 1972, the amount of developed land in Massachusetts increased by 59% in the same period. Even more alarming is the confirmation that, instead of protecting community character and the natural environment, today's development policies in nearly all of this Region's communities actually lead to sprawl. With that in mind, there are several important reasons for this project:

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<sup>2</sup> Losing Ground, Massachusetts Audubon Society, 1999

- *Improving The Region's Quality Of Life*

Unquestionably, quality of life is everyone's objective. Included in most definitions of quality of life are growth rates, poverty levels, family income, education, affordable housing and crime. In a comparison with eight other metropolitan statistical areas (MSAs)<sup>3</sup> within the Commonwealth, the Worcester MSA's ranking fell in the middle with an overall score of 4.3, one representing the best performance. However, this area is facing several potentially serious problems. Among these are lack of affordable housing, spiraling public service costs, increasing demands for new school facilities and more teachers, and loss of open space and community character.

- *Reversing The Trend Of Suburban Sprawl*

If 1990 trends were to continue, this Region could add another 70,000 acres of new development by 2020. An examination of our recent growth pattern reveals an alarming trend towards sprawl. We are presently developing farm and forest lands at the rate of 1,850 acres per year. Much of this growth has occurred as scattered, disconnected single family subdivisions and ribbons of commercial/business enterprises along our highways. Nothing short of a regionwide "smart growth" approach will suffice to slow this emerging development pattern. As used here, the conditions that cause sprawl are:

1. Unlimited outward extension of new development
2. Low-density residential development in new growth areas

---

<sup>3</sup> Other MSAs involved were Boston, Brockton, Fall River, Lawrence-Haverhill, Lowell, New Bedford, Pittsfield and Springfield



3. Widespread strip commercial development
4. Leap-frog development – that occurs beyond established growth areas
5. Dominance of transportation by private automobile
6. Reliance on trickle-down concept to meet housing demands of low-income households

- *Ensuring Sustainable Economic Development*

With the influx of more people, job creation is a critical part of the Region's economic future. CMRPC anticipates a 24% increase in employment by the year 2020. Ensuring a sustainable job and income base that reaches all members of the Region's labor force will require a commitment to training and education, transportation alternatives and directing new opportunities to locations that already have or will soon have the necessary public infrastructure.

- *Protecting Our Natural Environment*

What makes central Massachusetts special is its variety of natural resources. From Mt. Wachusett to the Blackstone River valley to the rolling hills of Oakham, Princeton and Rutland to the Quaboag River valley towns of the Brookfields, this is a place that should be protected from sprawl, over-development and most importantly, the wrong development. We are losing forests and agricultural lands at a rapid rate. And while we must find ways to accommodate new growth, it must not be done at the expense of our environment.

- *Providing A Framework For Public And Private Investment*

In shaping our future, one of the most critical elements is setting a direction for public and private investment. The location of state investments in transportation, water and sewer facilities and the like are the catalyst for new private development. Former Governor William Weld's recognition of this potential problem led to the issuance of Executive Order 385<sup>4</sup> that called for all state funded improvements to be consistent with adopted local and regional plans. The Route 146 corridor from Worcester south to Providence, is a prime example of a public decision providing the stimulus for any number of speculative developments.

- *Fostering Opportunities For Regional Collaboration And Problem Solving*

As this Region grows, the lines marking the limits of one community and the beginning of another are fading fast. We are now in a period where boundary development affecting two or more communities is a growing part of the Region's land use pattern. No longer can the impacts of a major development or the siting of a public facility be confined to only the host community. Instead of disputes and the threat of litigation, communities are now recognizing the need for finding joint solutions to these tough problems, and working out agreements and developing cooperative action.

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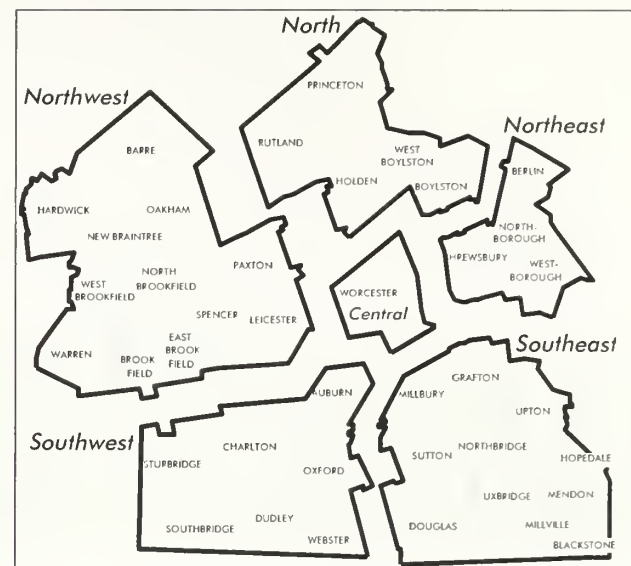
<sup>4</sup> Executive Order 385 issued April 1996 by Massachusetts Governor William F. Weld

## Subregional Planning Approach

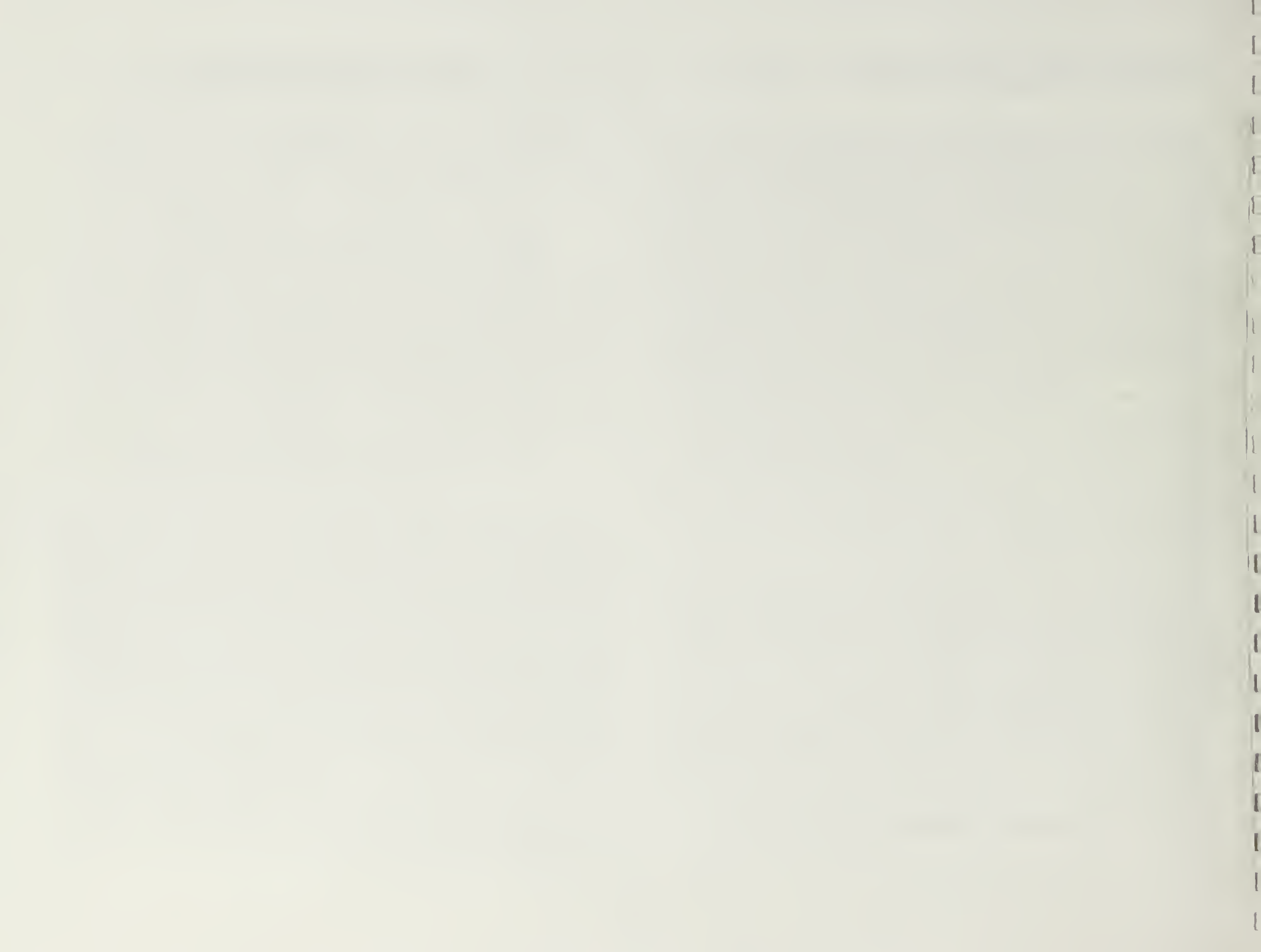
From a planning perspective, central Massachusetts is best viewed as a composite of six subregions (see Figure 2), each diverse in its economy, landscape and growth status. Worcester, the Central City, is in the midst of a transition, its economy shifting from a dependency on traditional manufacturing to one centered on medical care and biotechnology. Straddling I-190 and dominated by the presence of the Wachusett Reservoir, are the bedroom communities of the North subregion. In the Northeast, the booming employment growth along the I-495 corridor has stimulated the rapid development of new homes and retail businesses. The Blackstone Valley or Southeast subregion is evolving into a tourist area thanks to the development of the Blackstone River Valley National Heritage Corridor. Access via I-395, I-84, the Mass.Turnpike and Route 20 is the key to the Southwest subregion's strong growth. The expansive Northwest subregion is dotted with small farms and rural town centers.

To respond to the rapid growth of the 1980s and its consequent land use problems, the CMRPC in 1995 undertook a major planning effort, called the "Development Framework" project. At about the same time, Executive Order 385 was issued recognizing the need for coordination between state agency actions and communities through planning. The Commission's last planning effort of this magnitude was completed in 1970, and resulted in the release of its Future Spatial Policy Guide. This plan was intended to stimulate thinking on a regional scale regarding expectations for future growth.

Figure 2 CMRPC SUBREGIONS



The first phase of the "Framework" process resulted in the production of profile reports on population change and characteristics, an evaluation of the region's environmental resources, and the status of the area's public infrastructure. This was followed in the second phase with an in-depth examination of the region's economy and its prospects for the future. And, with financial assistance from the former Executive Office of Communities and Development, a computer model using Geographic Information System (GIS) technology was developed to determine areas most suitable for development. The last phase, begun in early 1998, is the preparation of the 2020 growth strategy that will provide a framework for future development, and can be used by communities as a dependable guide for their more specific planning activities.



# **2020 Growth Strategy**

## **III. DEVELOPMENT TRENDS & GROWTH ISSUES**

- **Basic Growth Assumption**
- **Regional Analysis**
- **Subregional Analysis**



### III. DEVELOPMENT TRENDS & GROWTH ISSUES

#### Basic Growth Assumption

Historically, urban development in Massachusetts, as elsewhere, occurred as ripples from major cities like Boston, Springfield and Worcester. This outward expansion was accentuated in the late 1800s with the development of mass transportation. Electric streetcars and elevated trains allowed the extension of urban development into the countryside along the fastest routes, with rail stations giving birth to small suburban centers quite removed from the central city. In the Boston area, communities like Newton, Arlington and Brookline were settled. And around Worcester, the same outward expansion occurred, creating towns like Auburn, Shrewsbury and Millbury. This trend was accelerated in the 1950s when the federal government undertook development of the interstate highway system.

CMRPC believes this outward expansion, now strongly influenced by the development of Rte. 128 (I-95), the Mass. Turnpike (I-90), the I-495 beltway and I-290 through Worcester, supports the assertion that settlement patterns have occurred as a series of waves. First pushing out to Rte.128, then expanding some 17 miles further west to I-495, much of it taking place during growth spurts like the one in the mid-'80s. Today, the leading edge of suburban development has spilled over I-495 into the central Massachusetts area. In fact, this beltway is today the fastest growing part of the state in terms of job creation and residential construction.

To help explain this assumption of population growth as a series of waves, we identified two areas between Boston and Worcester. AREA 1 (Grey) extends west from Rte.128 to I-495, from basically Rte.2 south to Rte.16. AREA 2 (Black) includes all communities between I-495 and Worcester. Secondly, we calculated the combined population growth rates for each area for each of the decades: 50's, 60's, 70's, and 80's. As illustrated in Figure 3 below and shown in Figure 4, the combined growth rate during the decade of the '50s was much less for Area 2 than Area 1. In the '60s, however, Area 1's population growth began to decline while Area 2, west of I-495, increased its rate of growth. By the decade of the '70s, Area 2's growth rate actually exceeded that of Area 1. And in the '80s, Area 2's growth rate more than doubled that for Area 1. In numerical terms, population levels still remain higher inside the I-495 ring, but clearly population growth in the Commonwealth is shifting – to the central area and southeast where open land and access is readily available.

Figure 3  
OUTWARD SPREAD OF POPULATION

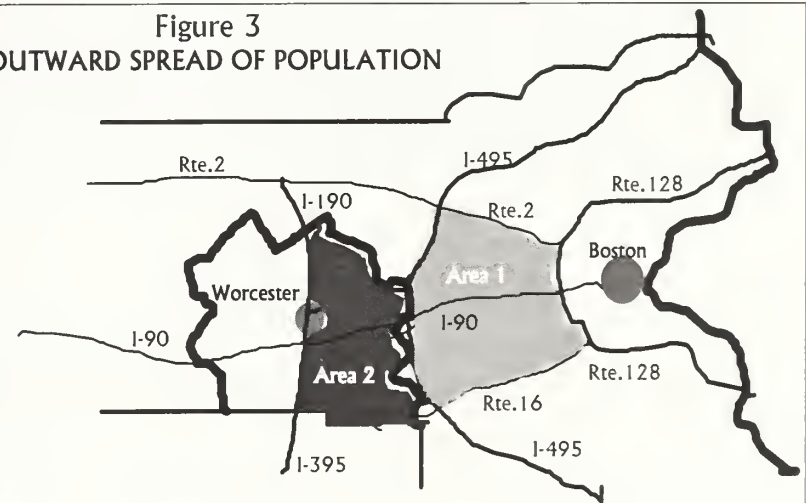
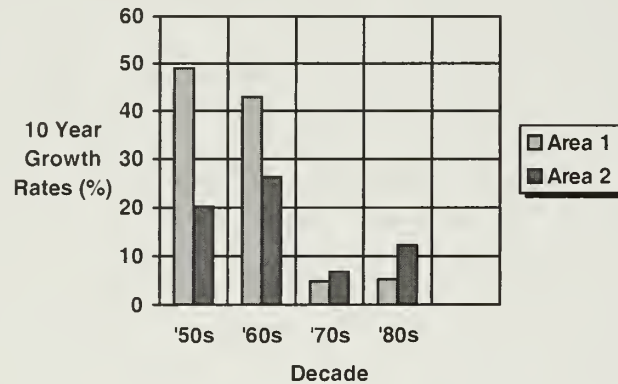




Figure 4 Population Movement



The current wave of development, fueled by a robust economy, has consumed much of the open land in the northeast part of the Region, and threatens to do the same in the Blackstone Valley. CMRPC believes the continued expansion of suburban growth could reach a new "beltline" by 2020, marked by I-190, I-290 through Worcester, and I-395 south. Forecasts call for an additional 80,000 people to settle in the Region. If more growth occurs, much of the area between I-495 and this new boundary could become developed by 2020.

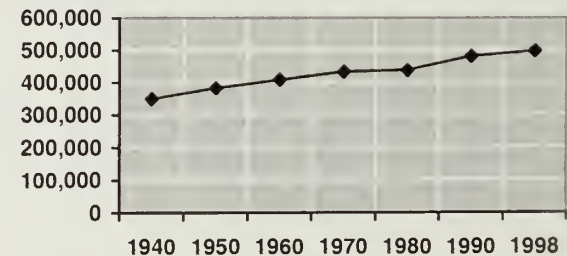
## Regional Analysis

The central Massachusetts Region encompasses the metropolitan city center of Worcester and 39 surrounding towns with a total land area of over 925 square miles. Worcester, New England's second largest city in 1990 at

169,759, is today the regional center of employment, health care, social services, culture, and education. The remaining communities range in size from Shrewsbury at 24,146 to New Braintree with a population of 881. With nearly 84% of its land still undeveloped, a plentiful supply of water and a transportation system that continues to be improved, this Region has few, if any, limitations on growth through the year 2020.

In 1990, the Region's population was 482,436, and according to the U.S. Bureau of the Census was estimated to have grown to 498,576 by 1998. As can be seen from Figure 5, the Region's population has exhibited steady growth over the last 50 years, with the largest gain of nearly 43,000 persons occurring in the decade of the '80s.

Figure 5 Regional Population Trends



Up to 1950, Worcester was the major recipient of new growth, but since then its share of the region's population has declined steadily to its present level of 35 percent. Where has the Region's growth gone? It has moved into



suburban and even rural towns. Twelve communities doubled their population, while nine others experienced over 50% increases. In fact, suburban/rural growth accounted for nearly 133,000 new residents between 1950 and 1990, while the City lost more than 33,000 people. This same push outside the central city is also evident in job growth. In 1950, 65% of the region's employment was in Worcester. But by 1990, the City's share had fallen to 48 percent.

Reliable data on land use is limited to 1985 MassGIS information, and an overall development change for 1990 extracted from SPOT Satellite Imagery<sup>5</sup> produced jointly by Clark University and CMRPC. Between 1971-1985, suburban development consumed some 17,200 acres or 1,230 acres annually. When residential land (13,458 acres) only is combined with the change in number of households (9,860) for the same period, newly developed housing provided more than one and a third (1.36) acres for each new household in 1985. Table1 provides a breakdown by open land and developed land categories for the 1971-1985 period.

A look at the 1990 data (Table 2) shows an acceleration of this trend. Between 1985 and 1990, the Region absorbed raw land at the rate of nearly 2000 acres per year. Taken as a whole for the 19-year period, the region's population increased by 10.6% while the spread of development expanded at 39.2%. What was lost? – more than 27,000 acres that had been devoted to farming and forest.

<sup>5</sup> Spot Satellite Imagery, a joint GIS project of Clark University and CMRPC to produce a 1992 land use coverage

Table1  
Regional Land Use Change 1971 to 1985

<u>Open Land</u>	<u>Change (Acres)</u>	<u>Developed Land</u>	<u>Change (Acres)</u>
Agriculture	-1,532	Multi-Family Res.	880
Pasture	- 696	High Density Res.	841
Forest	17,599	Med. Density Res.	2,749
Mining	785	Low Density Res.	8,988
Recreation	506	Commercial	897
Water	436	Industrial	1,115
Woody Perennial	114	Transportation	1,747
Other	769		

Source: EOEa MassGIS

Table 2  
DEVELOPMENT: 1971, 1985 & 1990 (in Acres)

Category	1971	1985	1990
Developed	69,194	86,413	96,304
Undeveloped	470,015	N/A	436,107
Protected Lands	75,402	N/A	82,200

Source: CMRPC

Almost half of this land was used for low-density single-family detached housing. Moreover, a comparison of land use maps for 1971 and 1985 shows the emergence of commercial strip development along many of the Region's highways. Both trends are alarming as they point to "sprawl", a development phenomenon that is beginning to dominate the form of this metropolitan area. A more detailed look at the issues this pattern of development raises for the remaining undeveloped land is presented below.

## ISSUE (1) -- LOW DENSITY, DISPERSED RESIDENTIAL DEVELOPMENT

*Description:* Low density, scattered and disconnected residential development, especially in new areas, is included by most urban experts in a definition of sprawl. Proponents of this type of development claim "sprawl" is an acceptable way of life that keeps the "American Dream" of a detached single family home alive.



*Large lot subdivision in Uxbridge*

*Evidence:* Between '71 to '85, new development consumed 0.67 of an acre for each new resident. More than half of this new development was low density residential. Land consumption data for '90 showed this absorption rate rose to 0.93 acres per person. Between '71 and '90, the Region's population increased by 10.6%, while developed land expanded by 39.2 percent. More than 13,000 housing units were authorized in the Region between '90 and '96, much of this at densities of one-two acres per unit. In a recent CMRPC survey<sup>6</sup>, local and business officials cited two-acre isolated residential subdivisions as sprawl. Nearly

<sup>6</sup> Sprawl: What Exactly Does It Mean? A CMRPC Survey of Public Opinion, 1998

55% indicated this development policy was by community choice. See Appendix for complete results

In an American Farmland Trust study<sup>7</sup> of three Massachusetts towns, it was found that the average cost of public services per dollar of taxes was \$1.12 for residential, \$0.41 for commercial and, \$0.33 for open space and agricultural lands. A Maine report on "The Cost of Sprawl"<sup>8</sup> concluded that the spreading out of development has contributed to increased spending by state and local government in three areas – education, roads and police. And a recent case study for the state of Florida<sup>9</sup> showed that "compact" development can save up to \$14,700 per dwelling in public service and infrastructure costs.

*Conclusion:* Dispersed low-density housing is an emerging land use problem that must be addressed now.

## ISSUE (2) -- STRIP COMMERCIAL HIGHWAY DEVELOPMENT

*Description:* Unlimited commercial stripping of major highway corridors is another often-cited characteristic of sprawl. Much of this type of development is driven by a municipality's need to build its tax base with development that contributes more than it demands in services.

<sup>7</sup> American Farmland Trust, Study of Service Costs in Three Massachusetts Towns, 1992

<sup>8</sup> "The Cost of Sprawl", Maine State Planning Office, May 1997

<sup>9</sup> Study by the Governor's Commission for a Sustainable Florida, 1989



*Strip shopping center on Rte. 20, Northborough*



*Rte. 9 commercial strip development, Shrewsbury*

*Evidence:* Land use coverage illustrates this extensive ribbon pattern of commercial uses. CMRPC's survey of local officials and business leaders identified this development as the number one problem associated with sprawl. Why? – it results in visual clutter and traffic congestion. Add in the emergence of "big box" retailers like Wal-Mart, who prefer highway locations, and its clear this form of commercial development is a principal reason for the decline in village centers as well as the downtown cores of central cities.

*Conclusion:* Another form of suburban sprawl that threatens the well being of city and town centers, and is a primary cause of increased traffic congestion and delays.

### ISSUE (3) -- DECLINING COMMERCIAL CENTERS

*Description:* Commercial highway development and the emergence of the "big box" retailers has led to the decline of once prosperous city and town shopping centers. Competition from outside leads to business losses inside and, eventually to empty stores and disinvestment. Blight is usually the next stage.



*Vacant stores in downtown Worcester*

*Evidence:* There are several communities in the region whose commercial centers exhibit disinvestment, deteriorating store fronts and an increasing loss of business. The principal cause for this decline is the emergence of suburban malls and the superstore retailers who have, consistent with existing zoning policy, chosen locations on major highways leading into/out of town. Support for downtown retailers is eroding as new housing is built further and further away from village centers. And since most shopping is performed by automobile trips, strip establishments and malls are more accessible than downtowns where parking is limited and comes with an additional cost. As more and more stores succumb to the competition, community character begins to decline – this



condition was cited by many respondents to our survey as a growing problem.

*Conclusion:* Failing city and town commercial centers lead to blight and lost tax revenues. This deterioration eventually results in the decline of nearby residential areas and the exodus of families to outside locations.

#### **ISSUE (4) -- COMPETITION FOR TAX-BASE DEVELOPMENT**

*Description:* Residential development demands more municipal services than it contributes in property taxes. To compensate for this imbalance, nearly all communities aggressively compete for non-residential development in the hopes of achieving fiscal balance. Proposition 2½ rewards communities for growth.



*Stand-alone shopping center in Northborough*

*Evidence:* A review of zoning patterns of the Region's 40 communities reveals a development policy bent on drawing non-residential development but not necessarily to locations with good access and available infrastructure. In fact, these requirements become less important to

developers than the ease of permitting and tax concessions. Numerous studies have shown that residential development does not contribute enough in tax revenue to pay for the services it demands, especially public education. Many communities have approached the education dilemma by first zoning to attract commercial/industrial development and secondly, increasing residential lot sizes to control population growth. We are aware that this is a difficult and costly issue in towns like Sutton, Charlton and Douglas who are experiencing rapid residential growth, but lack adequate water and sewer service. Most communities allocate more than half of their tax revenues to fund school programs and facilities. If public education were no longer dependent on the property tax, there would be less pressure to attract tax base development.

*Conclusion:* Until a new alternative to the property tax for funding public education is found, this is the only option available to communities.

#### **ISSUE (5) -- LOSS OF OPEN SPACE & FARM LANDS**

*Description:* Most of the region's development in the last two decades has utilized undeveloped open space, farm lands and forest areas. Consumption of suburban and rural "green" areas is proceeding at an alarming rate. Each new resident does not need nearly an acre of land to sustain a livable standard.



*Active farm in Charlton*

*Evidence:* Over 17,000 acres of forest, agriculture and pasture lands were consumed between '71 and '85 for new development. Using derived land use data for '90, it is estimated that another 20,000 acres of undeveloped land were used for new growth. The spread of development between '71 and '90 outpaced the growth of population by nearly a 4-1 margin. ANR (Approval Not Required) plans have also led to widespread "roadway" residential sprawl, particularly in rural towns. With the exception of Shrewsbury and Berlin, the remaining communities in the region do not have a program in place for the purchase of open space. Cape Cod is the only region in the state with an open space acquisition program financed by local taxation.

*Conclusion:* This is a "wake-up" call for communities in central Massachusetts. Alternatives to sprawl must be enacted by all communities.

## **ISSUE (6) -- INABILITY OF LOCAL GOVERNMENT TO CONTROL PRIVATE AND PUBLIC DEVELOPMENTS WITH REGIONAL IMPACTS**

*Description:* Nearly every state that has addressed the development process agrees that large-scale projects, either private or state, with impacts that cross municipal boundaries, cannot be resolved by local government entities alone. Conflicts, disputes and finally lawsuits can and do happen between the host community and its neighbors or the state. Some form of mediation is needed.



*Millbury Resource Recovery Plant*

*Evidence:* Over the last 10 years or so, a number of projects have emerged that would qualify as developments with regional impact. These include, but are not limited to, the proposed Crossroads Mall in Shrewsbury, the proposed resource recovery plant at Norton's in Worcester and the attempt by the state to site a prison in New Braintree. In some cases these projects are viewed as "NIMBYs" or Not In My Back Yard developments due to their size, suspected environmental hazards or the potential to substantially increase traffic. In other cases, like the location of Wal-Mart on Rte. 20 in Sturbridge, many residents of both the host community and neighboring towns were opposed, but they lost the battle on legal grounds. And then there are proposals like the Shrewsbury Mall (2<sup>nd</sup> site on Route 70) where the development was favored by the host town but

opposed by neighboring communities due to perceived negative impacts.

*Conclusion:* Developments of Regional Impact are and continue to be a controversial issue in central Massachusetts despite the fact that DRIs are seen by most planners as a legitimate role for regional planning agencies. In 1990, the Cape Cod Commission was given authority to decide the fate of projects that met certain thresholds. The state's planning community is divided, however, on the question of whether DRI reviews, conducted by regional planning agencies, should be advisory or mandatory.

## **ISSUE (7) -- STEERING TRANSPORTATION INVESTMENTS TO GROWTH CENTERS**

*Description:* If present trends continue, traffic congestion and air pollution will worsen, and the dependency on the automobile for nearly all trips will accelerate to unacceptable levels. CMRPC, if it chooses, can play a role in directing new transportation infrastructure to areas designated for future growth and away from areas that would lead to inappropriate development.



*Rte. 146/Mass Turnpike/I-290 connector project*

*Evidence:* In 1989 single occupancy vehicle travel accounted for 78.1% of all trips. By 2020, CMRPC projects a 32.6% increase in vehicle miles traveled. Massachusetts is considered to be in non-attainment for air pollutant ozone predominantly from cars and trucks. While measures are being taken to reduce emission levels, the growing dependency on gas fueled vehicles is a major concern. Transit serves only 3% of all person trips today. Moreover, the Worcester Regional Transit Authority's service is for the most part limited to the City's first ring towns. And while commuter rail to Boston has been extended west from Framingham to Worcester, ridership is just 800 passengers/day – helpful, but not nearly enough. Potential projects, as listed in the Region's 1997 Transportation Plan include the Rte. 49 extension to Southbridge, the E-W connector through the Blackstone Valley between I-495 and I-395, new access road to the Worcester Regional Airport, the Holden I-190 connector and/or Rte. 122A bypass, and the upgrade of Rte. 20 from Auburn to Northborough.

*Conclusion:* As one of four voting members to the Central Massachusetts Metropolitan Planning Organization, the CMRPC has the opportunity to influence where state and federal infrastructure funds are directed. This 2020 Growth Strategy should be the basis for all future transportation investment decisions.

## **ISSUE (8) -- INCREASING THE SUPPLY OF AFFORDABLE HOUSING IN SUBURBAN COMMUNITIES**

*Description:* In 1997, less than 10% of the region's housing stock was considered affordable. More than 64% of these



units were located in Worcester. Continued concentration of the poor in places like Worcester and Southbridge due to the unavailability of affordable housing elsewhere restricts the region's ability to fill entrance level jobs created by a growing economy.



*Apartment development in Shrewsbury*

**Evidence:** Only 14,610 or 7.7% of the Region's housing units are classified by the state Department of Housing & Community Development as affordable. Some 64% of these units are located in Worcester. The City of Worcester at 13.5% is the only community that meets the state's Chapter 774 affordable housing requirement – four towns have no affordable units. The Region as a whole registered slightly under the state average of 8.5%. The most exclusive subregions are the North, 2.7%, and the Northwest at 3.6%. Upton (8.7%) and Oxford (7.5%) rank second and third behind Worcester in affordable units. Worcester's housing stock includes 57% rental units. Next in line is Southbridge at 55%. Bottom line – affordable housing units have not kept pace with the Region's growth in housing.

**Conclusion:** With much of the new economy growing in the suburbs, the accommodation of workers in all income levels

will require development of affordable owner and rental housing in the region's growth centers.

## Subregional Analysis

This section describes growth and development within each of CMRPC's six subregions, as defined earlier in Chapter II. Included here is an examination of population change, development trends and the identification of the subregion's key growth issues. The results of this analysis lay the groundwork for the Development Framework's policies and initiatives.

### **METROCENTER – The City of Worcester**



The central City of Worcester, with nearly 170,000 population, is the "heart" of central Massachusetts. Interstate 290 provides direct access to the Mass. Turnpike and I-495.

Supported years ago by abundant water resources and later rail, Worcester grew as a manufacturing community. Factories were located in the valleys, while the large working class lived in triple-decker housing on the surrounding hills. Most neighborhoods remain today spatially separated with densities exceeding that of contemporary apartment complexes.



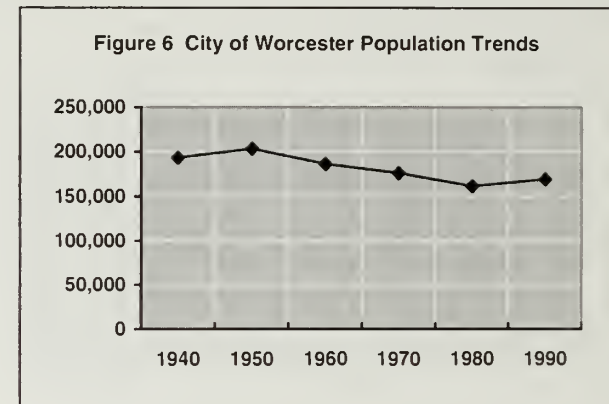
Today the City's economy is shifting away from its past dependency on manufacturing. Worcester's once dominant position marked by the homeownership of companies like Norton, Wyman-Gordon, Paul Revere Insurance and several home-grown banks, is expected to diminish further as nearby suburban towns with plentiful "green" areas and available water and sewer capacity, continue to expand. Since it is approaching full build-out with 66% of its land area already developed (see Table 3), the City's extensive brownfield sites offer the best opportunity for further economic growth. The emergence of the Central Massachusetts Economic Development Authority will help, but for any meaningful change, the City will need to address its property tax rate for commercial/industrial development. Now the third highest among the state's cities, the Worcester business community believes this is a major drawback to attracting new economic development. Unless this issue is resolved, we are likely to see a greater shift of the Region's wealth to suburban communities.

Table 3  
CITY OF WORCESTER  
1971, 1985 and 1999 Land Use (in Acres)

Category	1971	1985	1999
Developed	13,225	14,074	16,302
Undeveloped	9,210	N/A	8,376
Protected Lands	2,243	N/A	N/A

As Figure 6 shows, Worcester lost roughly 30,000 people between 1950 and 1980. This decline ended in 1990 and all indications point to a leveling off around 170,000. Population composition, however, is a different story. CMRPC expects the present trend of increased minorities, especially Hispanics and Asians, will continue due to the

abundance of affordable rental housing. This presents a serious problem for Worcester, since three-quarters of the region's job growth is projected to occur outside the City in suburban areas.



A concerted effort is now underway to build a new economy, one based on medical services and biotechnology. New facilities have been built or are under construction at UMass Medical, the Fallon Clinic, and Memorial Hospital. The newest facility, Worcester Medical Center, is utilizing a downtown urban renewal site for which its owner, Tenet Healthcare Corporation, received a rather generous Tax Increment Financing (TIF) package. Biotechnology, with the assistance of the Worcester Business Development Corp., has also developed a strong foothold in the City with the rapid development of the Worcester Biotechnology Research Park near the UMass Hospital and Medical School. In fact, its success has encouraged other communities like Grafton to take measures to promote similar uses.

Worcester's major challenge for the near future will continue to be the revitalization of its downtown center. Upscale retail shopping has long-since moved to suburban malls. Public funds, approaching three quarters of a billion dollars, have been used to build gateways into the City, a convention center, a new and expanded airport terminal and the renovation of Union Station as an intermodal transportation center. The City's strategy is simple and straightforward, use these publicly funded projects together with TIFs to attract private investment. Indeed, this was the approach used to draw Tennet Healthcare Corp. to Worcester.

### ***NORTHEAST SUBREGION – The Golden Triangle***



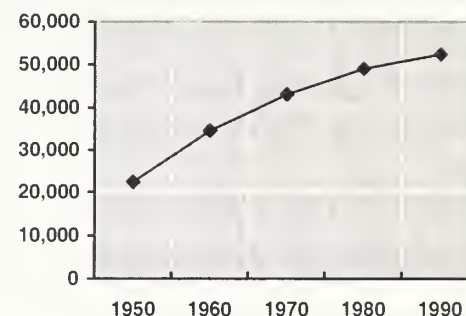
The Northeast subregion encompasses the four towns of Berlin, Shrewsbury, Westborough and Northborough with a total land area of 46,541 acres of which 30% is developed. The "triangle" is formed by two E-W state

highways, Routes 9 and 20, and I-495, a major N-S expressway. Bordering the northern part of this area is I-290, providing connection west to the City of Worcester and the "metrowest" area to the east.

This area is currently the fastest growing subregion, gaining 8.4% population during the first six years of the current

decade. Between 1950 and 1990, as shown in Figure 7, the NE area more than doubled its population. In the first five years of the '90s, 3.2 million square feet of commercial/office/industrial development was added. And since 1985, the Northeast has averaged 236 additional new housing units per year. The spillover of explosive growth occurring in the metrowest area (just east of I-495) is evident in all four NE subregion towns.

Figure 7 Northeast Population Trends



With the exception of the Rte.20 corridor through Shrewsbury, employment centers are pretty well fixed. Only Westborough possesses a true downtown core, though its viability is being undercut by more automobile convenient strip centers along Rte.9. Even Berlin, passed over in recent decades, has experienced development pressure after agreeing with its neighbor, Marlborough, to host a new shopping mall in 1995. Table 4 provides a breakdown of developed, undeveloped and protected lands for 1971, 1985 and 1990.

Table 4  
NORTHEAST SUBREGION  
1971, 1985 and 1990 Land Use (in Acres)

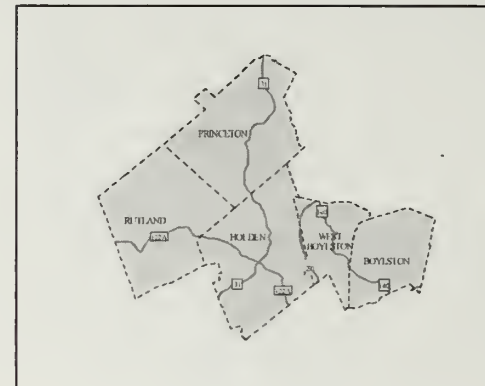
Category	1971	1985	1990
Developed	9,242	12,054	14,248
Undeveloped	34,627	N/A	29,206
Protected Lands	4,208	N/A	4,623

Shrewsbury, Westborough, and Northborough have extensive sewer systems that can accommodate new development. Water supply, however, is more limited. Because of the rapid growth in recent years, this subregion has the least amount of unused capacity. Westborough is developing new water sources and building a filtration plant to keep up with demand. Northborough is also nearing its safe yield. Berlin has no water or sewer system.

Traffic circulation is this area's primary growth issue. Congestion on I-495 and along all three E-W routes is rising sharply, especially during morning and evening commute times. And with double-digit increases in automobile travel forecasted for this area over the next 20 years, this problem will only get worse. Over development is also placing a heavy burden on school facilities and water supplies. Shrewsbury recently passed a bond issue to purchase open space, but this action may prove to be too little, too late.

\*

### NORTH SUBREGION – The Wachusett Area



The North sub-region encompasses much of the Wachusett Reservoir towns of Boylston and West Boylston, along with Holden, Princeton and Rutland. Access is provided by Routes 12, 70, 122A and 140. Interstate 190 cuts through this area, but

direct access is limited to only West Boylston.

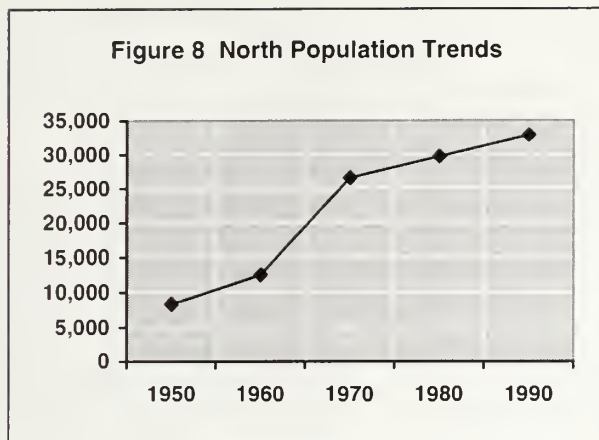
Only 12% of the Wachusett area is developed, while another 37% is protected. Holden, Boylston and West Boylston are maturing bedroom communities, while Princeton and Rutland are experiencing pressure for the same type of growth. Limited public water and sewer combined with the MDC's purchase of open lands (amounting to 16,120 acres as of '98) within the Wachusett watershed severely limit this area's development potential. Table 5 summarizes developed, undeveloped and protected lands for this area.

Table 5  
NORTH SUBREGION  
1971, 1985 and 1990 Land Use (in Acres)

Category	1971	1985	1990
Developed	6,835	9,095	10,002
Undeveloped	63,564	N/A	48,882
Protected Lands	20,481	N/A	31,996



Figure 8 North Population Trends



Population growth, as seen in Figure 8, has been slow but steady since 1970. In the 1960s, population growth more than doubled. Today approximately 33,000 people reside in the subregion's five towns. As employment centers like Devens Commerce Center in Ayer grow, we expect to see home developers expand their focus to localities like Princeton.

Infrastructure constraints have limited the North subregion's growth options. Holden and Rutland have limited sewer systems that are tied-in to the Upper Blackstone sewage treatment plant. To prevent further contamination of the Wachusett Reservoir by failed septic systems in Holden and West Boylston, the state has funded a major sewer project to help protect the Reservoir's water quality. Public sewer systems are not available in Boylston and Princeton. Water supply systems are more fully developed with the exception of Princeton, which has no public water supply.

Of importance in this subregion is slowing the trend of low-density single-family housing and the stripping of local highways with business establishments. Much of the undeveloped residential land in these towns is currently zoned for one-two acre lots. None of these towns have distinct town centers for shopping and services. Instead, Holden and West Boylston, and to some extent Rutland have permitted commercial activities along their primary access routes. Another major issue is the growing traffic congestion on Route 12 through West Boylston and Route 122A through Holden. There has been talk of a bypass, skirting Holden's elongated commercial strip, to move through traffic to Rutland and Princeton, but no action has been taken to date. Lastly, reuse of the 88 acre Rutland Heights Hospital site and redevelopment of some 290 acres of County owned property in Boylston and West Boylston remain undecided.

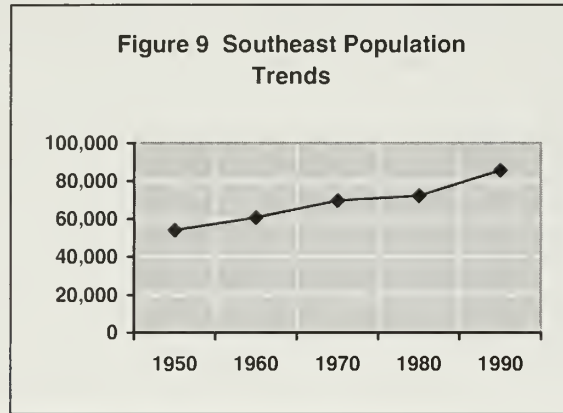
### *SOUTHEAST SUBREGION—The Blackstone Valley*



The eleven towns of the Blackstone Valley have a rich industrial heritage. This once center of huge textile mills centered along the Blackstone River, includes the towns of Blackstone, Douglas, Grafton, Hopedale, Mendon, Millbury, Millville, Northbridge, Sutton, Upton, and Uxbridge.

As seen in Figure 9, some 85,900 people live

here today, with Northbridge and Grafton the largest towns at slightly more than 13,000 and Millville the smallest at 2,200. The Valley's population surged during the growth spurt of the 1980s adding some 13,500 people.



Only 16.7% of the Valley is developed today, but substantial change is coming. This area stands in the path of development spreading west – we believe it will be the next target area for significant growth. In place is the I-495 corridor on its east border and the four lane divided, limited access highway Rte.146 with its connection to the Mass. Turnpike. Other assets include the availability of Grafton's new CenTech Park and Tuft's Biomedical Science Park which will be served by commuter rail line between Worcester and Boston. Past development is summarized in Table 6.

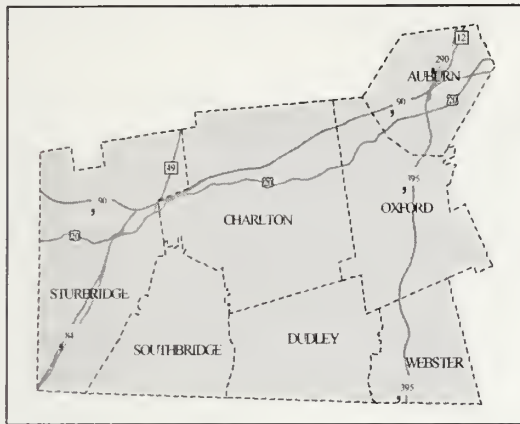
**Table 6**  
**SOUTHEAST SUBREGION**  
**1971, 1985 and 1990 Land Use (in Acres)**

Category	1971	1985	1990
Developed	15,203	20,106	22,905
Undeveloped	112,802	N/A	109,051
Protected Lands	13,525	N/A	9,574

The Southeast is the leader among the Region's six subregions for water system capacity. This surplus is an inducement for new development. Sewer systems are also fairly well developed in several communities including Grafton, Hopedale, Northbridge, and Uxbridge. Millville and Mendon have neither a public water or sewer system, while Sutton, Douglas, Blackstone and Upton have very limited service.

At issue for this area is 1) lack of an E-W connector highway between Rte.146 and I-495, 2) growing residential and commercial sprawl, and 3) preparing for future growth. North-south movement is excellent, but east-west travel is limited to Rte.16 and, further north, to local roads that tie one town center to the next. Even more problematic is the actual promotion of low-density housing, the resistance to affordable housing, and the commercial zoning of local highways at the expense of town centers. Last, but perhaps most important, is the lack of preparation. While the Blackstone Valley Chamber of Commerce and the Blackstone River Valley National Heritage Corridor Commission have been very active, the only serious local effort to date is a collaboration by five towns to jointly develop a plan for the Rte.146 corridor.

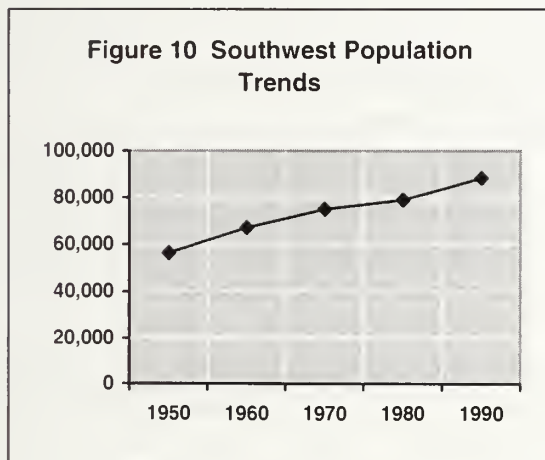
## SOUTHWEST SUBREGION – The Summit Area



This subregion encompasses a variety of communities with different aspirations and varying degrees of growth potential. Included here are the towns of Auburn, Oxford, Charlton, Webster, Dudley, Southbridge and Sturbridge.

Bordering on the north is the Mass. Turnpike, on the east is I-395, to the west in Sturbridge is the I-84 connection to the Turnpike, and paralleling the Turnpike is Route 20.

Figure 10 Southwest Population Trends



Population change, as seen in Figure 10, has been modest over the last 40 years, reaching a total of just over 88,000

in 1990. Four communities, Auburn, Oxford, Southbridge and Webster all exceed 10,000 population. Southbridge, the most populated community, has the second largest minority population in the region.

This is the third most developed subregion in central Massachusetts, with over 18% of its land devoted to urban uses. Auburn is a well-balanced community with affordable housing, the Region's second largest shopping mall and a good share of service employment. Oxford, immediately south, has grown more as a bedroom town, though it has hopes of attracting economic development with its connection to I-395. Webster, the most developed community, has a well-defined downtown and residential areas that are mostly serviced with water and sewer. Webster Lake, a summer attraction for tourists and campers, is an outstanding natural resource now threatened by overuse. Southbridge, the region's third largest community with over 17,000 people, is actively seeking new job growth. After receiving much less employment than originally projected for the U.S. Department of Defense's Financial Management Training Center located in the old American Optical plant, local officials are promoting the extension of Rte. 49 south from Rte. 20 by its airport and planned industrial park into the Town center.

Table 7  
SOUTHWEST SUBREGION  
1971, 1985 and 1990 Land Use

Category	1971	1985	1990
Developed	14,604	18,640	20,660
Undeveloped	100,451	N/A	93,550
Protected Lands	2,750	N/A	3,595



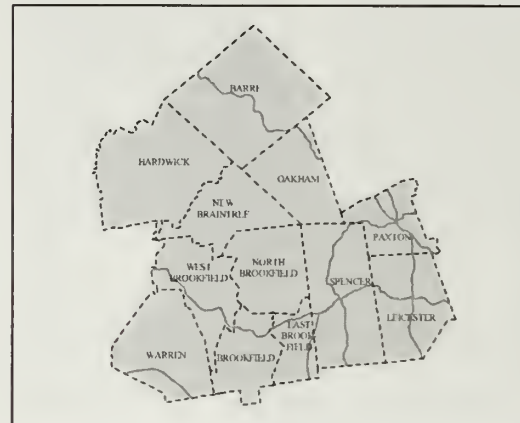
Charlton is the region's most obvious example of leapfrog development. Ever since the early '80s, the town has consistently recorded the highest growth rates among the region's 40 communities. With access to Rte. 20 and liberal zoning and subdivision controls, Charlton is a "ripe" area for sprawl type, single family development. Dudley is a growing bedroom community that relies on the more developed retail services found in its neighbors, Webster and Southbridge. This town has the most acreage in the Region protected under the state's Agriculture Preservation Restriction program. Sturbridge is a tourist area, with Olde Sturbridge Village as its main attraction. Yet its location at the interchange of I-84 and the Mass. Turnpike also makes it an attractive alternative for workers willing to travel to Springfield, Worcester or even Hartford. Table 7 summarizes land development for the Southwest subregion.

The availability of public infrastructure to accommodate new growth varies considerably. Auburn has the most fully developed water and sewer systems, and capacity exists to attract a significant amount of new growth. Oxford has an abundance of water but will be limited by its lack of public sewers. Charlton has very limited water and sewer systems which have not been expanded to service its rapid housing growth. Southbridge, with substantial water and sewer capacity, is positioned to attract new economic development. Sturbridge has adequate water supplies, but its sewer capacity is very limited.

At issue for the "Summit" area is the proliferation of low-density housing and the uncontrolled use of ANRs along

many local roads, especially in Charlton. The signs of sprawl are already present, and will only worsen if action is not taken now to curb this development trend.

### ***NORTHWEST SUBREGION – The NW Territory***

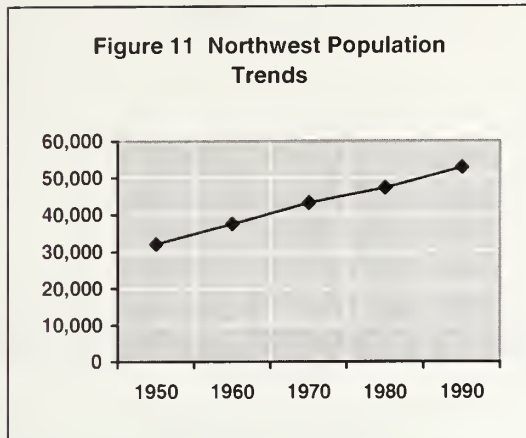


This is the most rural area within central Massachusetts. With the exception of Spencer and Leicester, the remaining towns of this subregion, Barre, Brookfield, East Brookfield, Hard-

wick, New Braintree, North Brookfield, Oakham, Paxton, Warren and West Brookfield, were all under 5,000 population as of the 1990 census. As shown in Figure 11, the total population for this area was roughly 53,000, providing a density of only 182 people per square mile.

Approximately 42% of the Region's active farms and 40% of its managed forests are located here. Most new development has consisted of low-density single-family homes strung along town roads. Spencer serves as a trade/service center for much of the surrounding rural populace and offers limited employment opportunities. Flexcon, a maker of labels and decals, located here a few years ago.





And, a large rail facility for transferring and preparing new cars for distribution throughout New England was approved for a site off Route 49 in Spencer and East Brookfield, but has remained inactive for several years. Subregional development for the NW is summarized in Table 8.

**Table 8**  
**NORTHWEST SUBREGION**  
**1971, 1985 and 1990 Land Use (in Acres)**

Category	1971	1985	1990
Developed	10,085	12,444	13,885
Undeveloped	149,362	N/A	145,383
Protected Lands	32,195	N/A	32,374

Public water and sewer systems are obviously not extensive in this rural subregion. Warren and Barre have built new treatment plants in recent years, and along with Spencer, have excess capacity to attract new development. Water systems are more fully developed, and because of the low overall amount of growth, there is generally excess

capacity. Only New Braintree and Oakham lack public water supply.

The most damaging aspect of recent growth is ANR or Approval Not Required housing on two acres or more that strips all frontage on state and local roads. Continuation of this development could quickly impact the area's pastoral charm.



# **2020 Growth Strategy**

## **IV. SETTING A NEW DIRECTION**

- **Growth Options Considered**
- **Selected Growth Option**
- **Commission Goals & Policies**
- **Commission Initiatives**





## IV. SETTING A NEW DIRECTION

The overall purpose of the Development Framework is to confront the realities of regional growth, particularly the unprecedented demand for housing and local governments continuing quest for tax base development. In seeking to maintain their quality of life, the majority of communities in the Region have instead established development policies that promote sprawl. If this trend were to continue, we could expect another 70,000 acres – the equivalent land area of Worcester, Holden, Shrewsbury and Millbury combined – to be consumed for development purposes by 2020.

To address this emerging issue, four future growth options were developed using CMRPC's Regional Development Suitability Model. Each option was thoroughly evaluated before a selection was made. Next, goals and policies were established to lay the foundation for a joint partnership with the Region's 40 communities to reverse or at least check the trend towards sprawl.

### Growth Options Considered

*Trends Extended* – This option assumes that development patterns would continue into the foreseeable future in much the same fashion as they do today, consuming as much as 70,000 acres by 2020. With the real estate market in full control, housing would be developed as low-density single family units, creating a patchwork of living arrangements in both suburban and rural locations. Leapfrog development would become commonplace. Higher-density more affordable housing choices would be

ignored or discouraged. Commercial enterprises would continue as strip developments, encouraged by communities competing for tax-base development. Superstores or "big box" retailers would also continue to take advantage of communities seeking non-residential development. Employment centers would continue their migration to suburban "green" areas. And single occupancy automobiles would remain the primary mode of transportation, leading to further congestion and delays. Unable to keep pace with spiraling demands for school facilities and other public services, some communities would be forced to trim budgets to the "bare bone" or rely on continuous Prop. 2 ½ overrides.

*Compact Development* – This option concentrates development in portions of a community where public infrastructure is in place to accommodate cluster type housing, mixed-use developments, in-fill of nearby vacant lots and reuse of "brownfield" sites. Farmlands are protected, open space preservation is emphasized, and market forces are controlled. City and town centers remain viable as strip commercial developments are discouraged. Every effort is made to concentrate new development where public water and sewer services already exist. And, there is a greater reliance on mass transit, including commuter rail where available.

*Village Centers* – In this scenario, the concentration of new development is consigned to areas in and around the village or town center. At higher densities, this development must have the availability of water and sewer service and ideally be regulated by architectural design codes to retain the New England village identity. This option may not be applicable to all towns, only those with well-defined

centers. Planned jointly with the Compact option, this scenario offers definite advantages to sprawl.

**Growth Centers** – This option recognizes the pressures of the market to build in locations with excellent access, water and sewer capacity, and a public consensus for growth. Planned business centers and a wide range of housing types are usually promoted. By channeling growth to these areas, demand for large-lot development is greatly diminished in outlying areas. This option will work best if there is a willingness to share tax revenues with neighboring towns. Westborough and Shrewsbury are the region's best examples of this option.

## Selected Growth Option

Given the area's emerging problem with suburban sprawl, it was obvious to all Committee members that a "smart" growth strategy was advisable. Therefore, the primary goal here is to promote the concept of compact growth with a village center emphasis where possible. The Committee is convinced that this option offers the best opportunity for preserving open space, retaining community character, maintaining or revitalizing city and town centers, easing traffic congestion and assuring that we don't overtax public utilities. It was also agreed that every effort should be made to direct private investment to the City of Worcester and other economic centers that already have in place the required public infrastructure. And lastly, the Commission firmly believes the "rules" of land use development must be changed or reformed, while other proven tools for proper growth management must be enacted to better support local planning efforts.

## Strategic Goals & Policies

As used here, goals are statements of the direction in which the CMRPC, on behalf of its member communities, should move in order to advance growth and, at the same time better manage change. The policies that follow are intended as guiding principles, collectively representing the Commission's intention to address the Region's emerging issue with sprawl. Specific proposals for subregional actions are contained in the next chapter.

- *To accommodate projected growth within acceptable plan guidelines.*
- 1. Encourage communities to study current patterns of urban land consumption and consider zoning actions to preserve open land, retain community character and limit low density residential development.
- 2. Encourage the employment of a professional planner, either full-time, part-time or under a joint sharing arrangement with neighboring communities.
- 3. Create opportunities for inter-local dialogue on growth and development changes, and the sharing of information and ideas.
- 4. Improve the use of CMRPC's Local Planning Assistance program, GIS computer mapping services and Town Planning Matching Grant program through development and funding of a new marketing plan.

5. Control sprawl in rural areas by establishing densities consistent with farming and restrict commercial uses not appropriate for rural centers.
  6. Promote the use of planning techniques that can achieve a measure of compactness in urban village centers that possess appropriate public infrastructure.
- *To capitalize on the region's potential for new job creation opportunities.*
    1. Within the City of Worcester and older suburban towns, encourage reinvestment and reuse of sites, especially "brownfield" sites where feasible.
    2. Provide information about the region's economic development potential through the conduct and maintenance of an industrial site survey.
    3. Promote economic growth in locations with public utilities that can be developed as clusters or nodes and eventually become linked to public transit.
    4. Expand and coordinate public and private training programs to enable all members of the region's labor force to improve technical, teamwork and problem solving skills.
    5. Encourage collaboration among government, industry and public and private institutions in marketing this area as a place where "value" and opportunity can be found.

- *To provide a basis for public infrastructure investments.*
  1. Identify potential centers of growth and the associated public infrastructure needed for continued development.
  2. Guide state infrastructure expansions and other public improvements to desired growth centers.
  3. Encourage the growth of the area's transportation system in conformance to land development constraints as well as local and regional plans.
  4. Preserve the region's existing transportation infrastructure and only consider new additions to accommodate unexpected but desired changes.
- *To provide a common frame of reference for all city and town planning.*
  1. Distribute this document to city and town officials and, at their request, meet with them to explain the development issues and CMRPC's growth forecasts.
  2. Promote the use of CMRPC's growth forecasts and its recommendations for controlling sprawl when addressing local officials about the undertaking of a Master Plan.
  3. Encourage community-driven planning processes that bring people together to identify growth issues, develop a vision, set goals, and determine actions to improve their communities.



- *To provide a foundation for the development of regional land use management and sharing of municipal services.*

1. Promote an ongoing dialogue about regional growth management techniques including advisory reviews of boundary zoning cases and developments of regional impact among planning officials in each of CMRPC's six subregions.
2. Explore the creation of a planning database that would be accessible to all communities through CMRPC's Internet site.
3. Collaborate with the Worcester Area Regionalism Education Project (WAREP) on the extension of CMRPC's GIS services to its member communities and the provision of data to assist this group in identifying new service areas.
4. Assist in the redevelopment of the Region's numerous brownfield sites through the establishment of a joint planning partnership with the Central Massachusetts Economic Development Authority.

## Commission Initiatives

Guiding and controlling tomorrow's growth and its consequent issues is more than just the individual obligation of the City of Worcester and the planning district's 39 towns. It is also the responsibility of the Central Massachusetts Regional Planning Commission that

represents their planning interests. Listed below are initiatives that CMRPC agrees to pursue on their behalf:

### STATEWIDE

- *Promote the enactment of a Statewide Comprehensive Planning System*

The best chance this region and other regions throughout Massachusetts have in slowing the trend towards sprawl is through a mandatory system of planning for all levels – state, regions and municipalities. At the local level, this should be a prerequisite to zoning, subdivision and other land use controls. A number of proposals for such a move have been filed in the State Legislature over the past 15 years, each failing to grab the attention of key political leaders including the last three governors. Perhaps with some leadership provided by the federal government's new "anti-sprawl" initiative, Massachusetts will finally get serious about smart growth.

- *Work closely with state agencies to ensure compliance with E.O. 385 requirement for consistency of state investment plans with adopted local and regional plans*

Former Governor William F. Weld's E.O. 385 initiated this requirement in the belief that, without policy direction, the state may actually be contributing to the problem of sprawl through its decisions on investments in water and sewer facilities and, especially new highway construction. We strongly believe adopted local and regional plans should be adhered to as a guide for future state capital projects.



- *Work with other planning organizations to reform Chapter 41, Section 81P, the state law that allows property owners to subdivide their land by the use of Approval Not Required (ANR) plans*

This is an especially critical problem in our rural areas where most residential growth is accomplished through the ANR process. It has led to residential striping of many local roads, a development that planning boards are without authority to control or to direct to more desirable areas through planning and zoning. At a minimum, ANR development should be restricted to the creation of no more than two lots, both of which meet the use and dimensional requirements of local zoning for residential purposes. The creation of non-conforming lots should not be allowed.

- *Change Massachusetts law to allow Cluster Residential Development by right at the Municipality's option*

Current state law requires developers to seek a special permit if they wish to develop cluster housing. This adds an additional step, further delays and more costs, which we have found works against a plan of concentrated housing. Though many communities have cluster bylaws, developers are choosing the conventional subdivision because it is easier to obtain approval. This compact housing arrangement should be allowed, by local option, as a use by right or under special permit provisions in residential districts appropriate for denser development.

- *Solicit the Massachusetts Municipal Association and the state's planning community to actively promote legislation that would authorize cities and towns to use impact fees*

To address the costs of development, the use of impact fees is a proven tool, widely used in other states. This device would allow communities to impose fees on new development to offset the difference between tax revenues and the cost of necessary improvements such as schools, parks and traffic controls. For several years now, bills have been filed with the state legislature but with no success. The hang-up appears to be the lack of required planning, particularly for capital improvements. This tool is a perfect complement for those communities who are serious about controlling growth.

- *Encourage the Region's Legislative body to consider legislation that would allow tax-revenue sharing among municipalities*

One of this region's more serious growth issues revolves around the competition for non-residential development. Literally every community is seeking to strengthen its tax base through the attraction of commercial/business development. This constant struggle to find a balance is what has led many communities to promote the stripping of their highway frontages with one retail/service business after another. Tax revenue sharing recognizes that only certain communities benefit from economic growth, while others within the same area don't benefit at all. The

Minneapolis-St. Paul model<sup>10</sup> is well worth the state's consideration.

• *Massachusetts' "Anti-Snob" Zoning Law has been largely ineffective. The goal is sound, but its application is flawed and inconsistent with Executive Order 385, Planning for Growth. Reform of Chapter 40B is necessary.*

CMRPC fully supports the need for more affordable housing, especially in its growing suburban towns. As earlier noted, only 7.8% of the region's housing stock has been classified as affordable. Yet, however necessary, the application of this law seems to have lost its way over the last 30 years. Why?

First, Chapter 40B applies to all communities, even small rural communities with little or no commerce and or no access to public transportation. If low-moderate income people or families are the target group, then the logical location for subsidized housing would be in urban growth communities where these necessary services are available and where employment opportunities can also be found.

Secondly, the application of this law defies today's move to smart growth strategies by allowing the aimless siting of higher density housing in any area of a community, including those sites planned and zoned for economic development. In the ongoing municipal struggle to achieve balanced growth, ideal sites for commercial/industrial

development should not be undermined by the need to satisfy some state mandated quota for affordable housing.

Lastly, 40B is not enforced today by any state agency. Witness the statewide average of only 8.54%. More importantly, there are no penalties assessed against those communities, who receive state aid year after year but do very little, if anything, to address the 10% affordable housing requirement. Simply put, there is no incentive for communities to address the problem.

## REGIONAL

• *Establish Subregional Coordinating Councils in the Northeast, North, Blackstone Valley, Southwest and Northwest to promote inter-local dialogue and regional cooperation on growth issues*

One thing we have learned is that there are no easy answers to controlling sprawl. It is also true that one solution does not necessarily fit all subregions. Therefore, we recommend that the Commission, working with its delegates from each subregion, establish coordinating councils to promote dialogue and understanding on common issues, and to develop subregional solutions that fit their needs.

• *Use the Commission's vote on the Central Massachusetts Metropolitan Planning Organization to influence the investment of federal and state transportation infrastructure funds in designated growth areas*

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<sup>10</sup> Minnesota Fiscal Disparities Law, 1971

CMRPC is one of four members with voting authority on the Central Massachusetts Metropolitan Planning Organization. This body annually decides which transportation projects will be funded and in what construction year. With the adoption of this Plan, there is for the first time, an opportunity to direct these investments to communities, who by accident or choice, will be the Region's growth centers.

- *Design a new model "Compact Growth" manual for use by all planning boards in central Massachusetts*

There are several techniques that local planning boards can incorporate into their development controls to achieve more compact settlement patterns. This manual will be designed as a non-technical "how to do it" guide on such practiced ideas as cluster residential housing, planned-unit development, purchase of development rights, intensity level development based on local infrastructure and natural resources, mixed-use zoning that combines housing with commercial development, impact fees, tax increment financing and cluster-type commercial centers that restrict access to one entry.

- *Work with area legislators and elected officials to pass legislation providing a state matching program for municipal open space acquisition*

The Commission's Legislative Affairs Committee will work with members of the Central Massachusetts Legislative Caucus to obtain their support for the creation of municipal land banks, by vote of all residents, for matching state funds to purchase and preserve key open space properties.

This program is already in effect for the 15 towns of Cape Cod.

- *Explore with planning officials in all subregions the need and utility of CMRPC advisory reviews on boundary zoning changes and large-scale developments*

As more and more development occurs, the issue of mitigating impacts between communities increases, especially when the proposed development is located on a boundary or is of a scale that may have regional impact. Commission staff will explore with the coordinating council for each subregion what level of voluntary reviews might be helpful to communities. Adding an independent opinion to their deliberations should assist local planning boards in making more informed decisions.

- *Create a regional information clearinghouse and database for use by local planning boards as well as prospective developers*

There is a great deal of land use planning data available - the problem is that it exists in various forms within a number of state, regional and non-profit planning organizations. It is the aim of this task to build a clearinghouse for all planning activities including existing land use, zoning regulations, subdivision controls, master plans, permit and hearing processes, and the availability of state grants for planning initiatives. This information will be accessible through our Internet site.



- *Conduct an in-depth study of all industrially zoned sites in the region*

There does not exist a comprehensive listing of industrially zoned properties in central Massachusetts. To fill this gap and assist in the promotion of new economic development, CMRPC will undertake a survey of all industrially zoned parcels of 25 acres or more. This data plus site characteristics and ownership information will be formatted for our Internet site, where developers and real estate agents can easily access the information.

- *Undertake a major inventory and priority setting of natural resource areas for future protection/acquisition*

Our profile report on the environment contained a limited assessment of the region's protected lands. There are several state parks in central Massachusetts, non-profit holdings by such organizations as Mass. Audubon Society and municipal parks and conservation areas. In all some 82,000 acres, or 13% of the region have been protected. This leaves more than 435,000 acres available for future development. But not all of it is suitable and not all it should be devoted to some urban use. This study will provide new data on which lands, due to their natural resource qualities or strategic location, should be given strong consideration for permanent protection by municipalities.

- *Create a greater awareness among area legislators for smart growth management through regular dialogue with members of the Central Massachusetts Legislative Caucus*

There is, we believe, limited recognition or understanding among central Massachusetts legislators about the region's problems with sprawl, competition for non-residential development and traffic growth. A concerted effort must be made by the Commission to inform and educate them about these and other issues, and most importantly solicit their active support for state action.

- *Support applications for federal and state grants from communities who have in place an approved program to attract affordable housing*

The City of Worcester is the only community that meets the state's requirement for affordable housing. With the expected expansion of employment opportunities in suburban towns, it is incumbent upon them to assume a fair share of affordable housing to accommodate the need for a diversified labor force with varying levels of skills. Mixed-use developments and rental housing are in short supply in many of the region's growing suburban communities.

- *Actively participate in other regional initiatives*

The Commission is interested in assisting any initiative that promotes regional cooperation. The Worcester Area Regionalism Education Project, a regional project under the direction of a group of town managers/administrators, offers an opportunity to link CMRPC's GIS services to local



government needs. The Central Massachusetts Economic Development Authority, is another regional authority where collaboration on the region's numerous hazardous waste sites makes sense. And, the I-495 Technology Corridor Initiative/Campaign for Shared Solutions, involving some 38 communities along this corridor including five within this Region, is concerned with growing traffic, time consuming permit processes and the adequacy of water and sewer capacity. These are regional issues - we must be active in these initiatives and any others that emerge.

- *Re-evaluate development trends when up-dated land use information becomes available*

The results of CMRPC's analysis of existing land use data revealed an alarming, but not definitive, trend towards sprawl. Within the next 2-3 years, it is expected that the Executive Office of Environmental Affairs will have produced a new land use coverage for the entire state, and build-out analysis maps for all 351 municipalities. This data plus the results of the 2000 census provides an excellent opportunity to examine development trends once again to ascertain the threat of sprawl in central Massachusetts.



# **2020 Growth Strategy**

## **V. 2020 FORECASTS & SUBREGIONAL GROWTH STRATEGY**

- **Standards & Regional Growth Expectations**
- **Subregional Growth Strategies & Municipal Actions**





## V. 2020 FORECASTS & SUBREGIONAL GROWTH STRATEGY

With a firm understanding of the region's development trends and issues, and a policy framework established, the last phase of the Development Framework involved the design of a growth strategy for each subregion. First, 2020 growth forecasts, previously developed for the Region's 1997 Transportation Plan, were refined and applied to CMRPC's six subregions. Secondly, maps identifying the most and least suitable areas for growth were produced for each subregion. And lastly, municipal actions were developed to provide guidance for future growth.

### Standards & Regional Growth Expectations

The Region's growth projections are based on CMRPC's previous forecasts for both households and employment. To achieve the goal of a more efficient growth pattern, a residential density of 1.0 acre per household and 20 employees per acre for non-residential development was assumed. This standard limits land consumption to about 70% of what the trends extended option would yield over the next 20+ years. Worcester has been treated differently due to the lack of suitable areas and the existence of a sizable group quarter population. Here, residential density has been set at 0.25 acres per household.

In total, approximately 49,000 acres or an additional 8% of the Region is expected to be developed by 2020. Table 9 provides the regional growth forecasts for the years 2000, 2010, and 2020.

Table 9  
Growth Forecasts for Central Massachusetts

Year	Population	Households	Employment	Developed Land/Acres
1990	482,436	177,733	201,507	96,304
2000	517,954	197,276	231,762	116,089
2010	545,067	211,887	247,848	131,502
2020	567,215	224,772	262,338	145,112
% Change 1990-2020	17.6%	26.5%	30.2%	50.7%

Source: CMRPC

### Subregional Growth Strategies & Municipal Actions

The above Regional growth forecasts were fitted to each of CMRPC's six subregions based on overall growth trends and the area's capability (in terms of water and sewer capacity) of receiving more development. All six subregions, including the City of Worcester, are illustrated with a full page map identifying lands suitable for development. Utilizing CMRPC's GIS based Regional Development Suitability Model, these maps weigh such factors as roadway access, the availability of water and sewer service, and natural features such as slopes, wetlands and soils. Constraints on future development, such as land already developed, lakes and rivers, and protected open spaces were also factored in to this calculation. Land which is developed or protected from development is identified in gray. The most suitable areas for development are defined

as those containing a combined high score for the factors listed above – these areas are shown in black. The least suitable areas, while open to development, are less likely to be developed prior to those with a high suitability rating – these areas are shown in white.

At the end of each subregional growth strategy, a set of municipal actions have been added and, are recommended to address existing and future growth issues.

## METROCENTER

As the metropolitan center of the Region, Worcester is expected to remain New England's second largest city through the year 2020. Though its population underwent a steep drop between 1950-1980, this decline shows every indication of having stabilized. Projections call for modest increases reaching the 178,000 point by 2020. Households will continue to be added, but the decline in household size and the expected increase in group quarters will hold overall population growth to a minimum. A large influx of minorities and immigrants will continue to be drawn to the City due to the availability of rental housing and bus transportation. This growing segment of the population, now representing about 21% of the total, will require a serious commitment of education, training and transportation assistance if they are to become productive members of the Region's labor force.

Manufacturing, once a staple of the City's economic prosperity, will continue its slow decline. New employment, projected to increase by some 6,000, is likely to be in the service sector, and medical care and biotechnology fields. The City's eight major academic institutions are not anticipated to grow much beyond current levels – thus their employment should remain stable.

With a shrinking supply of undeveloped land, the City's best hope for new economic growth is through the remediation of some 210 "brownfield" sites. Additional potential exists for infill and redevelopment in the downtown area and the Sunderland Rd. area, better known as the SW cutoff. Revitalization of Worcester's neighborhoods is also expected to add new housing. Table 10 summarizes the growth projections for the central City.

Table 10

City of Worcester Growth Forecasts			
Growth Factors	2000	2010	2020
Population	170,163	174,143	178,123
Developed Land	15,666	18,622	21,774
Households	66,305	69,043	71,963
Employment	105,411	109,764	114,407

## Municipal Actions:

- Promote the development of more market rate rental and condominium housing in the downtown core.
- Reduce the tax rate on commercial/industrial property to be more competitive with suburban areas.
- Retain industrially zoned lands for industrial purposes rather than allowing their use for commercial projects.
- Market Worcester as the "crossroads" of New England where "value" and opportunity can be found.
- Place less emphasis on being the center of retail activity and instead, concentrate on developing Worcester as an education, health and cultural center.

- Make regional cooperation and collaboration with neighboring towns a priority by assuming leadership and providing financial support.
- Resolve the issue of improved access to the Airport, and transfer control of operations to another public/private entity to increase utilization.

## NORTHEAST SUBREGION

The Northeast, particularly Shrewsbury, is in the midst of a building boom. Shrewsbury, a "hot" market for single-family homes, is likely to reach full build-out. The Rte. 20 area through Shrewsbury is expected to be redeveloped as existing trucking firms move their facilities to less costly areas. New housing is already under construction south of Rte. 20. Westborough, due to its advantages of highway access (Rte.9 and I-495) and available sewer capacity, will continue to be an attractive location for high-tech and office development. Northborough is also undergoing pressure for single-family development and strip-commercial use along Rte. 20. Berlin, co-host to the Region's largest shopping center, Solomon Pond Mall, has so far resisted pressure for additional commercial growth.

At this point in time, the Northeast subregion is the best example of the development wave pushing west of I-495. Developers and real estate investors seeking location, access and the availability of public infrastructure are consuming raw land at a rapid pace. Population is expected to increase by 29.4% and development by 33% or another 4,000 acres. Nearly all of the subregion's most suitable land will likely be developed by 2020. With the exception of Berlin, this subregion will become a mature, evenly mixed suburban area. Table 11 summarizes the growth forecasts for the Northeast subregion.

Table 11

### Growth Forecasts for NE Subregion Municipalities

	Population			Developed Land		
	2000	2010	2020	2000	2010	2020
Berlin	2,451	2,555	2,633	1,023	1,078	1,127
Northborough	13,987	14,477	14,845	4,441	4,723	4,967
Shrewsbury	29,034	30,050	30,812	7,987	8,678	9,285
Westborough	16,713	18,384	19,637	5186	6,144	6,935
Subregion	62,185	65,466	67,927	18,637	20,623	22,314

	Households			Employment		
	2000	2010	2020	2000	2010	2020
Berlin	885	939	986	444	471	495
Northborough	4,936	5,200	5,429	6,743	7,104	7,416
Shrewsbury	11,668	12,323	12,899	12,751	13,467	14,096
Westborough	6,672	7,505	8,194	19,904	22,389	24,446
Subregion	24,161	25,967	27,508	39,842	43,431	46,453

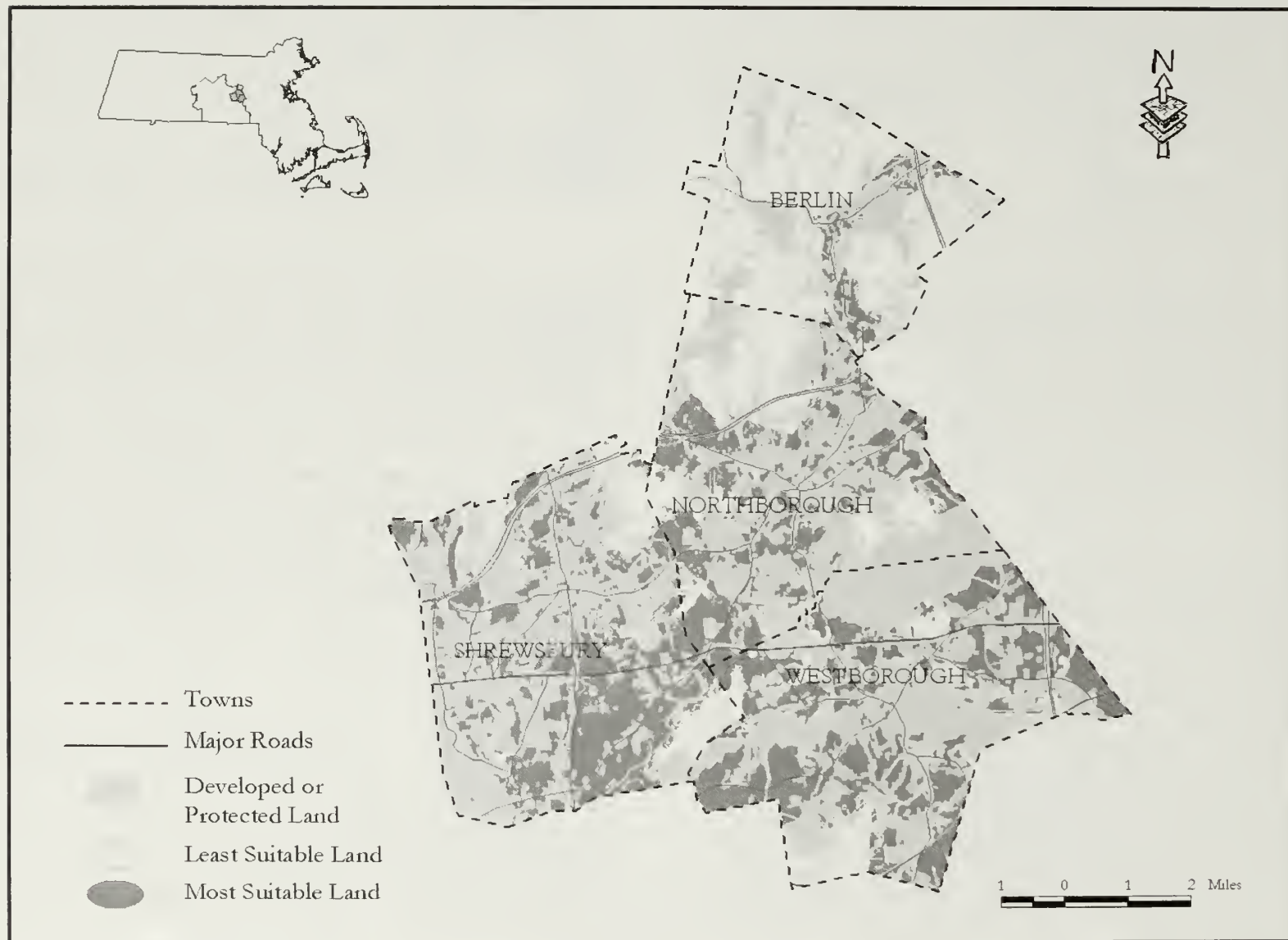
As illustrated in Map 1, the southeast quadrant of Shrewsbury offers the best location for growth. The southwest corner of Westborough, and pockets along I-290 are also notable areas for development. Berlin has the least potential for any significant change. In total some 36,000 acres have been identified as most suitable for future development.

### Municipal Actions:

- Seek town action in Westborough and Northborough, as Shrewsbury has already done, to establish a bond fund to purchase open space.
- Provide more incentives to encourage greater use of cluster residential developments to achieve compact living arrangements in appropriate areas.



MAP 1 DEVELOPMENT SUITABILITY - NORTHEAST SUBREGION



- Develop by laws for mixed-use development and promote their use in town centers.
- Look for opportunities to create designated service roads for highway business access.
- Investigate the use of transit and carpooling to reduce auto trips to nearby employment centers.
- Make use of development exactions to offset public costs for expected future needs triggered by growth.
- Collaborate on the planning, funding and implementation of bikeways to connect residents to employment and shopping areas within the subregion.
- All communities should make a commitment to encourage the development of more affordable housing choices.

## NORTH SUBREGION

The presence of the Wachusett Reservoir and the Metropolitan District Commission's actions to acquire surrounding properties severely limit growth in this area. For the most part, this subregion has developed as a middle to upper class bedroom area. Holden and West Boylston could experience renewed development pressure due to construction of a new sewer trunk line. Nevertheless, only some 2,000 acres are projected to be used over the next 20 years, much of that in the form of new housing. West Boylston has the best opportunity for limited economic development given its direct access to I-190 and additional sewer capacity. The other three communities are largely rural with populations of less than 7,000 people. Boylston and Princeton are likely to remain that way unless pressure builds for more housing due to the growth of nearby employment centers such as the Devens Commerce Center in Ayer.

Very modest population growth is expected in this subregion, rising from 32,881 in 1990 to approximately 39,700 by 2020. With only a slight increase in employment forecasted, this area will not be a center of future job growth unless access is improved or the Rutland Hospital and left over County property in both Boylston and West Boylston is redeveloped. Growth forecasts for the North subregion are presented in Table 12.

**Table 12**  
**Growth Forecasts for North Subregion Municipalities**

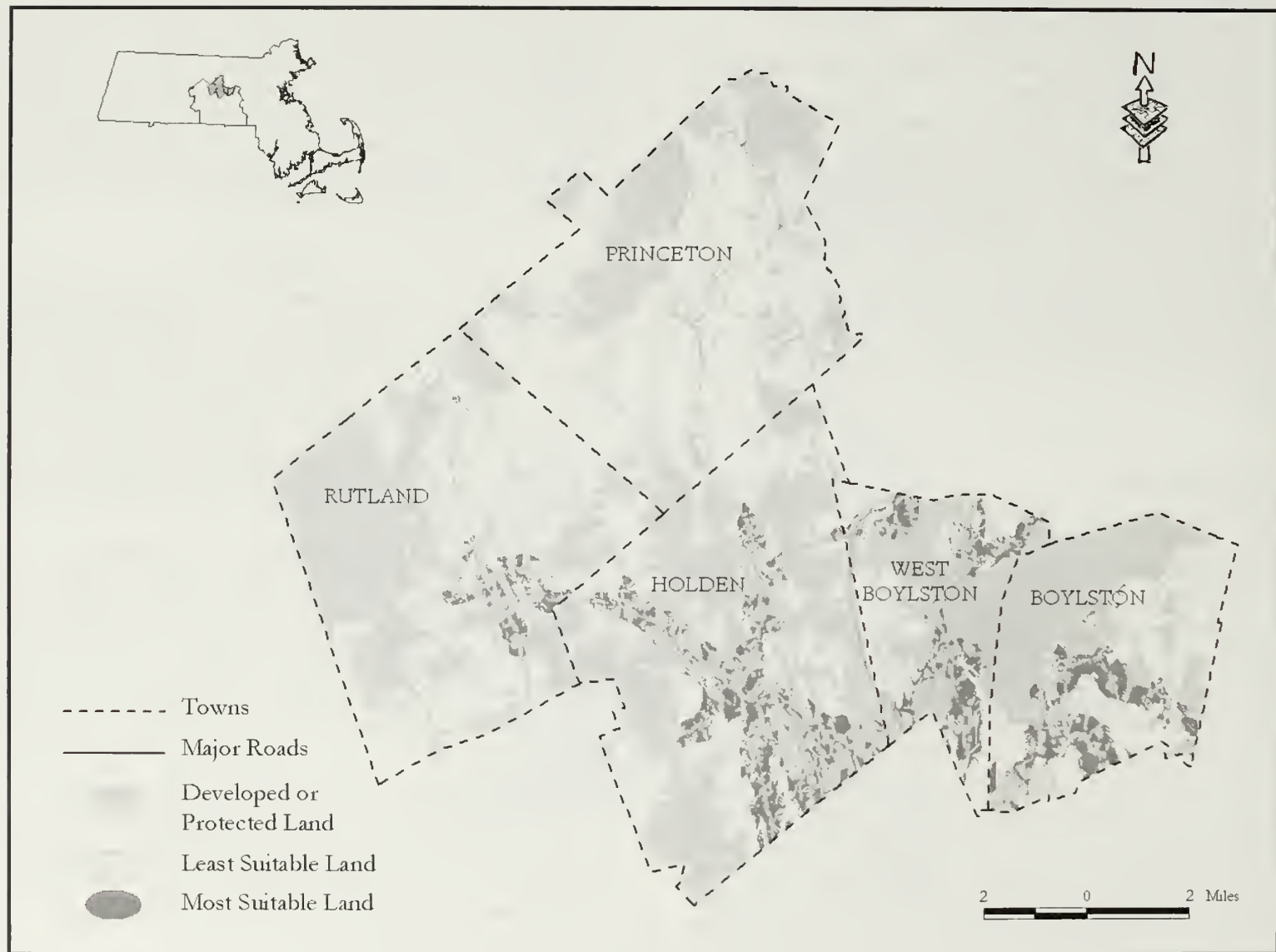
	Population			Developed Land		
	2000	2010	2020	2000	2010	2020
Boylston	3,724	4,096	4,375	1,373	1,563	1,721
Holden	16,221	16,789	17,215	4,694	5,039	5,341
Princeton	3,579	3,891	4,125	1,662	1,795	1,906
Rutland	6,211	6,428	6,591	1,850	1,970	2,075
West Boylston	6,965	7,209	7,392	2,236	2,365	2,477
Subregion	36,700	38,413	39,698	11,815	12,732	13,520

	Households			Employment		
	2000	2010	2020	2000	2010	2020
Boylston	1,466	1,645	1,793	1,871	2,099	2,288
Holden	6,088	6,421	6,712	4,572	4,822	5,040
Princeton	1,230	1,360	1,468	605	669	722
Rutland	2,199	2,315	2,417	1,394	1,468	1,532
West Boylston	2,408	2,529	2,634	3,239	3,402	3,543
Subregion	13,391	14,270	15,024	11,681	12,460	13,125

The most suitable areas for future development, as seen in Map 2, are associated with state highways such as Routes 31, 122A and 140. In total, some 17,000 acres of land are included in this category. Much of the subregion's least suitable land is located in Princeton and Rutland



MAP 2 DEVELOPMENT SUITABILITY – NORTH SUBREGION



## Municipal Actions:

- Reactivate the Wachusett Task Force as a regular forum for discussions of common development problems, the sharing of ideas and growth management techniques, and most importantly to build trust and cooperation among the North subregional communities.
- Access to I-190 or a bypass may be needed for the Town of Holden to offset growing congestion on Rte.122A. If and when this project is considered, the impact on West Boylston should also be evaluated.
- Support legislative approval of impact fees on residential uses to cover expenses for school building and expansion.
- Support changes to ANRs, Massachusetts Chp.41, Sec.81P, that would require compliance with zoning and subdivision law.
- Base residential density standards on soil suitability for septic systems in unsewered areas.
- Mixed-use bylaws that encourage a combination of residential and commercial activities should be strongly considered in all towns to achieve compactness in appropriate areas.
- Look for opportunities to create designated service roads or center lanes to facilitate automobile movement into and out of highway commercial districts.
- Make better use of new septic system technology to promote the use of cluster housing.
- Holden and West Boylston should enact cluster commercial/business bylaws that require the concentration or merging of uses with one access point to reduce on and off movements along Routes 122A and 12 respectively.

- With the demise of Worcester County government, surplus county land in West Boylston and Boylston should be evaluated for potential economic development.

## SOUTHEAST SUBREGION

Within the next 10 years or so, the Blackstone Valley is very likely to become the Region's next major growth area for housing. Signs of a spillover from the I-495 area are already visible. Highways, notably, I-495 to the east, I-395 on the west, and Rte.146 running N-S diagonally through the middle of the Valley and connecting to the Mass. Turnpike in Millbury, are the key growth generators for this area as they provide excellent access to nearby employment centers. The Rte.146 corridor is also the Valley's prime area for new economic development, but its potential is limited by the lack of appropriately zoned land with water and sewer service. Redevelopment of vacant mill space is a lesser, but still viable option for commercial/light industrial development. At some future date, there may be a need for an improved E-W highway connection between I-495 and Rte.146.

At 85,923 in 1990, the forecast is for a 27% increase in population over the next 30-year period, bringing the Valley's total to nearly 110,000 people. This growth is likely to require the use of an additional 7,500 acres. Douglas, Grafton, Northbridge and Uxbridge should emerge as the key suburban growth centers over the next 20 years. Table 13 summarizes the growth forecasts for the Southeast.

**Table 13**  
**Growth Forecasts for SE Subregion Municipalities**

	Population			Developed Land		
	2000	2010	2020	2000	2010	2020
Blackstone	9,000	9,315	9,551	2,106	2,288	2,447
Douglas	6,693	8,112	9,176	2,508	3,085	3,547
Grafton	14,448	15,427	16,161	4,281	4,795	5,228
Hopedale	5,834	6,038	6,191	1,434	1,550	1,651
Mendon	4,796	5,276	5,636	1,865	2,074	2,246
Millbury	12,750	13,025	13,231	3,374	3,589	3,784
Millville	2,630	2,914	3,127	812	937	1,039
Northbridge	14,399	15,450	16,238	2,989	3,508	3,941
Sutton	7,658	8,326	8,827	3,099	3,384	3,618
Upton	5,828	6,032	6,185	2,267	2,403	2,521
Uxbridge	12,045	13,250	14,154	3,770	4,334	4,800
Subregion	96,081	103,165	108,477	28,505	31,947	34,822

	Households			Employment		
	2000	2010	2020	2000	2010	2020
Blackstone	3,296	3,475	3,631	1,230	1,297	1,355
Douglas	2,413	2,979	3,433	930	1,148	1,323
Grafton	5,523	6,015	6,429	4,999	5,444	5,819
Hopedale	2,106	2,219	2,317	1,251	1,318	1,376
Mendon	1,686	1,888	2,054	1,193	1,336	1,454
Millbury	4,973	5,179	5,366	4,198	4,372	4,530
Millville	961	1,085	1,186	180	203	222
Northbridge	5,317	5,816	6,232	4,306	4,710	5,047
Sutton	2,623	2,901	3,130	1,244	1,375	1,484
Upton	2,352	2,485	2,601	942	995	1,042
Uxbridge	4,525	5,073	5,525	2,720	3,049	3,321
Subregion	35,775	39,115	41,904	23,193	25,247	26,973

Prime areas for future development, as illustrated in Map 3, are generally located in the northern half of the Valley, especially in Grafton and Millbury. Much of the area west of Rte.146 is of lesser importance due to the lack of sewer service.

## Municipal Actions:

- Develop, with the assistance of CMRPC, a coordinated development plan and growth controls for the Rte.146 corridor which will attract new economic development and retain its scenic beauty.
- Establish a subregional coordinating council of local officials and business leaders to continue the dialogue on how to resolve common problems, share ideas and information and further build on the trust and cooperation already achieved.
- Each community in the Valley should take steps to prepare for the future. This means updating comprehensive plans and, re-tooling zoning bylaws and subdivision regulations with the aim of achieving a more compact pattern of development.
- Towns with identified village centers should give serious consideration to mixed-use bylaws that would allow businesses and apartment/ condominium residential uses to be combined.
- Consideration should be given now to the planning and preservation of key open space parcels through town purchase.
- Consolidation and clustering of commercial uses on highways like Routes 140 and 122 should be given priority to minimize traffic congestion and left turn movements.
- For communities not likely to be sewered, residential densities should be based on soils' suitability for environmentally sound septic systems.
- Pursue an aggressive marketing campaign to attract potential job producing projects to CenTech Park, Tuft's Biomedical Park and appropriate sites on Route 146.

MAP 3 DEVELOPMENT SUITABILITY – SOUTHEAST SUBREGION





- Package treatment plants should be encouraged in cluster type residential developments which are to be managed by an association of owners.
- Support revisions to ANRs, Chp. 41, Sec. 81P that would provide planning boards with more authority to control the proliferation of this type of development along open roadways.
- As this subregion grows economically, plans should be made to promote the development of affordable housing choices, especially in emerging employment centers.

## SOUTHWEST SUBREGION

Growth prospects in this subregion appear to be quite strong. Given the large amount of available land, good highway access and few environmental constraints, rapid residential growth is forecasted. With a 46% increase in population projected for Charlton over the next 30 years, it alone will consume another 2,500 acres for residential development unless stronger controls are put in place. Following closely behind should be Sturbridge and Southbridge. Economic growth will exceed the forecasts for both eastern subregions with Auburn and Southbridge receiving the largest share. Sturbridge and Charlton may benefit from the cluster of fiber-optic firms now established in the area. Thus, new development is likely to be evenly divided between residential and business uses, consuming another 9,000 acres.

Southbridge, with the region's second largest supply of rental units, is likely to see its share of minority population,

particularly Hispanic, grow further. In total, another 20,000 people will reside here, bringing this subregion's total population to nearly 108,000 by 2020. Growth forecasts for "Summit" communities are provided in Table 14.

**Table 14**  
**Growth Forecasts for SW Subregion Municipalities**

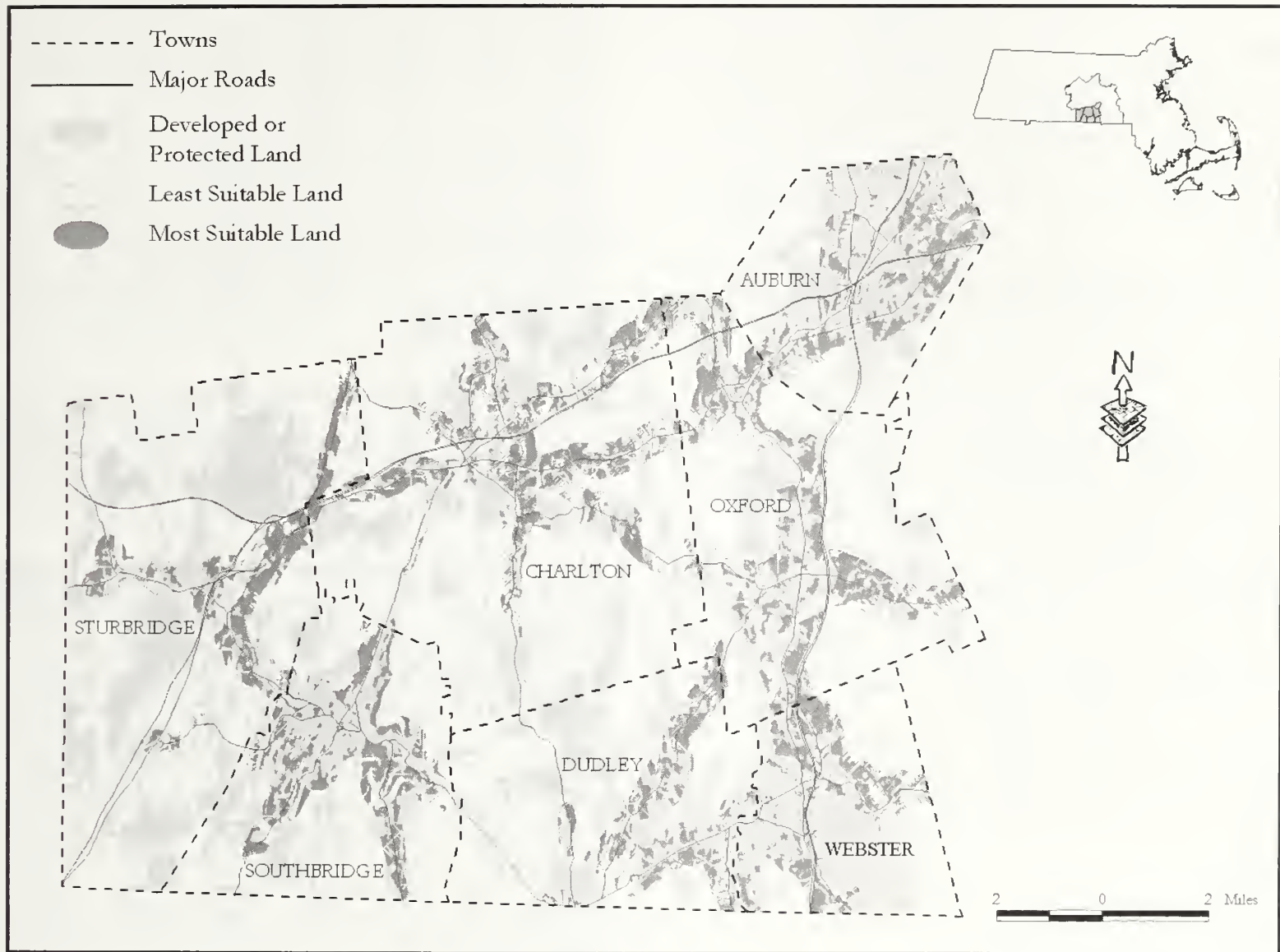
	Population			Developed Land		
	2000	2010	2020	2000	2010	2020
Auburn	15,558	16,103	16,512	4,554	4,902	5,216
Charlton	11,933	13,126	14,021	4,249	4,753	5,165
Dudley	10,204	10,741	11,144	2,466	2,747	2,986
Oxford	13,638	14,473	15,099	3,944	4,365	4,720
Southbridge	18,887	20,152	21,904	2,628	3,812	4,783
Sturbridge	8,453	9,991	11,145	3,615	4,314	4,879
Webster	16,274	17,251	17,984	3,245	3,842	4,353
Subregion	94,947	101,837	107,809	24,701	28,735	32,102

	Households			Employment		
	2000	2010	2020	2000	2010	2020
Auburn	6,110	6,433	6,723	9,776	10,292	10,756
Charlton	4,065	4,553	4,952	2,640	2,957	3,216
Dudley	3,765	4,038	4,270	2,208	2,369	2,505
Oxford	5,039	5,449	5,794	2,749	2,973	3,161
Southbridge	7,168	8,294	9,217	7,400	8,562	9,515
Sturbridge	3,154	3,802	4,325	5,037	6,071	6,906
Webster	6,826	7,393	7,878	7,262	7,865	8,381
Subregion	36,127	39,962	43,159	37,072	41,089	44,440

Primary areas for new growth are generally located along the subregion's highway corridors – Routes 20 and 149, and I-395. Some 41,000 acres have been identified in Map 4 as most suitable for development.



MAP 4 DEVELOPMENT SUITABILITY – SOUTHWEST SUBREGION



## Municipal Actions:

- A commitment to planning and growth management is a must in this subregion if residential sprawl and leapfrog development are to be reversed.
- A new connector road between I-395 and I-84 should be assessed to meet the demands of economic growth later in the forecast period.
- Oxford, Charlton and Sturbridge must address the need for infrastructure expansion and the preservation of open space.
- Southbridge should continue to work with its neighbors, Charlton and Sturbridge, on plans to improve access to major highways such as Rte.20 and I-84.
- Southbridge and Webster are in danger of losing their downtown centers to strip commercial growth along Routes 16, 131 and 20. These towns should make use of incentives like TIFs and Transferable Development Rights (TDRs) to keep their retail centers healthy. Another move that would add new consumers, is the development of more downtown market rate housing.
- Charlton, rapidly approaching a population of 12,000, should give serious attention to building water and sewer infrastructure to meet future growth demands.
- Summit area communities, especially Charlton, Oxford and Sturbridge, should consider now plans to identify and preserve key open space sites.
- This area should support revisions to ANRs, Massachusetts Chp. 41, Sec. 81P that would provide planning boards with more authority to control the proliferation of this type of development along open roadways.

## NORTHWEST SUBREGION

This is the most rural, least populated and undeveloped area within central Massachusetts. With the exception of the Rte.9 towns of Leicester and Spencer, the remaining 10 towns will continue their rural status through 2020.

Growth prospects here consist largely of continued large lot single-family housing. Lack of better access and limited water and sewer service will restrict most non-residential growth to only Leicester and Spencer. Spencer may add more commercial development to enhance its position as the subregion's major trade center. And further industrial development near Routes 9 and 49 should not be discounted.

Overall, this subregion should not plan for any significant change. As such, only modest changes in population, employment and land development are forecasted. Table 15 summarizes the growth projections for the Northwest area.

**Table 15**  
**Growth Forecasts for NW Subregion Municipalities**

	Population			Developed Land		
	2000	2010	2020	2000	2010	2020
Barre	5,048	5,462	5,773	1,437	1,639	1,806
Brookfield	3,288	3,538	3,726	1,084	1,178	1,286
East Brookfield	2,197	2,313	2,400	688	748	799
Hardwick	2,555	3,258	3,785	807	1,124	1,377
Leicester	11,091	11,639	12,050	2,928	3,204	3,440
New Braintree	963	1,044	1,119	354	388	420
North Brookfield	5,108	5,341	5,516	1,370	1,501	1,616
Oakham	1,815	2,131	2,368	696	825	929
Paxton	4,442	4,597	4,713	1,392	1,469	1,535
Spencer	12,600	13,264	13,762	3,262	3,633	3,949
Warren	4,948	5,411	5,758	1,502	1,741	1,937
W. Brookfield	3,823	4,045	4,211	1,283	1,395	1,488
Subregion	57,878	62,043	65,181	16,803	18,845	20,582

	Households			Employment		
	2000	2010	2020	2000	2010	2020
Barre	1,888	2,083	2,244	1,390	1,534	1,652
Brookfield	1,294	1,421	1,527	577	633	681
East Brookfield	808	866	916	403	433	458
Hardwick	1,015	1,325	1,573	456	595	706
Leicester	3,899	4,164	4,389	3,493	3,731	3,932
New Braintree	321	354	386	105	116	126
North Brookfield	1,950	2,078	2,189	1,157	1,233	1,299
Oakham	653	781	884	120	144	163
Paxton	1,488	1,564	1,629	388	408	425
Spencer	4,859	5,216	5,521	3,652	3,921	4,150
Warren	1,962	2,190	2,378	1,784	1,991	2,162
West Brookfield	1,380	1,488	1,578	1,038	1,118	1,186
Subregion	21,517	23,530	25,214	14,563	15,857	16,940

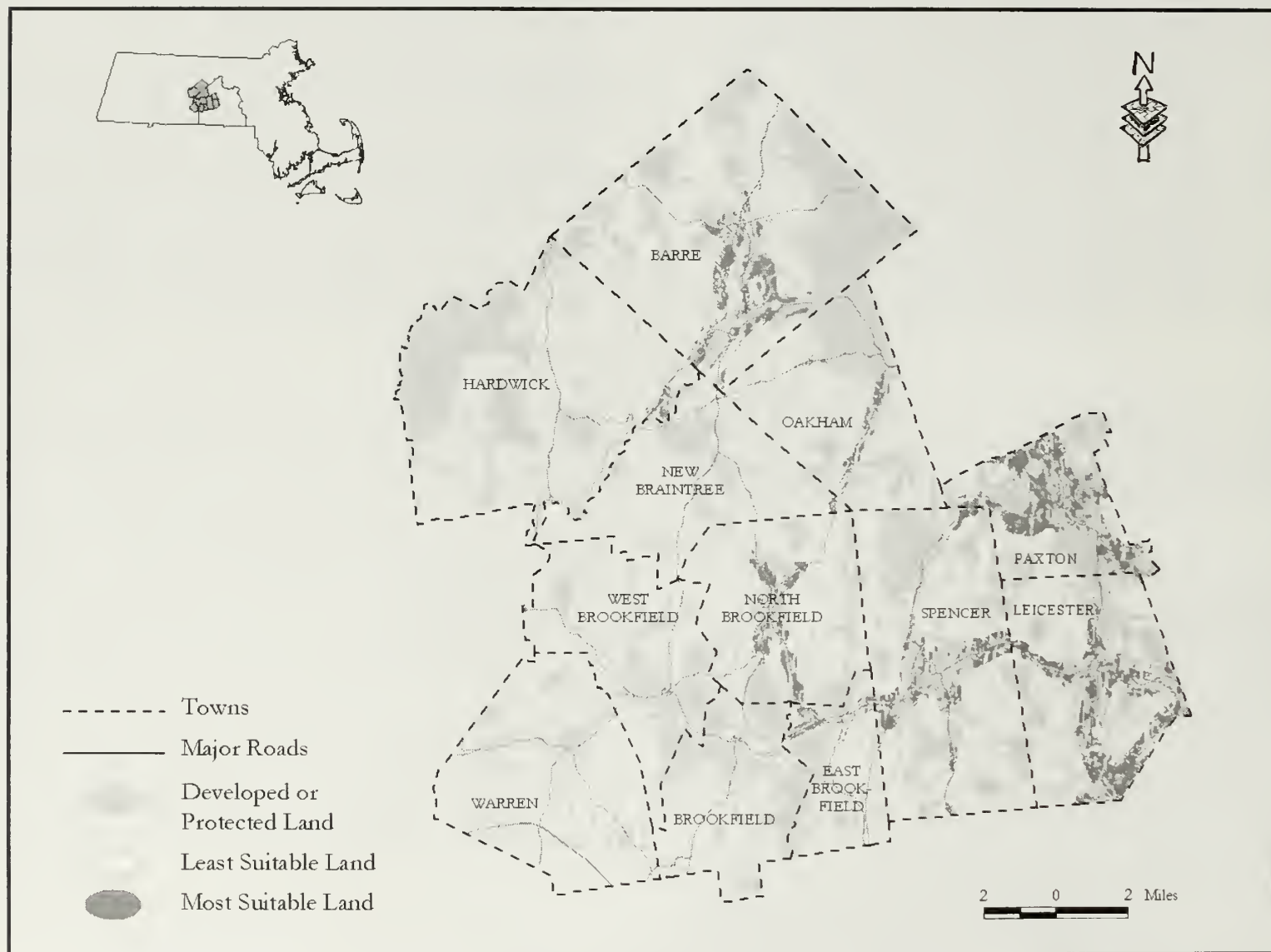
From Map 5, the best areas for growth, totaling over 26,000 acres, are located in Barre center and in Paxton along Routes 31 and 122. Some additional development may also occur along Rte. 56, south of Leicester center.

### Municipal Actions:

- Every effort should be made to preserve agricultural lands using tax incentives to keep farms in business.
- Rural planning programs should be developed to retain small town centers and restrain the pressures for too much residential growth.
- As a general standard, rural communities of less than 5,000 people should zone open areas to meet the agriculture preservation land standard of Chapter 61A.
- Commercial/business zones should not be allowed to strip out state highways like Route 9, but instead encouraged to concentrate in town centers and as clusters with limited access.

- New economic, job producing development should be limited to only sites with good access and adequate public water and sewer facilities.
- Towns in this subregion should support changes to Chapter 41, Section 81P, that would restrict use of ANRs and force compliance with local zoning bylaws.
- As the trade center for this area and with a population expected to exceed 12,000 in the year 2000, Spencer should seek professional planning assistance to expand its commercial base, protect the viability of its downtown, and look for opportunities to attract new employment growth to the Routes 49 & 9 area.

MAP 5 DEVELOPMENT SUITABILITY – NORTHWEST SUBREGION





# **2020 Growth Strategy**

## **VI. APPENDIX**

- **Sources of Information and Reference**
- **Results of CMRPC Survey on Sprawl**
- **Governor Wm. Weld's Executive Order 385**
- **Municipal Plans Prepared Since 1985**
- **Methodology for Development Suitability Maps**





# SOURCES OF INFORMATION AND REFERENCE

## **1997 Regional Transportation Plan: Central**

**Massachusetts Region** A source of forecasts of households and employment prepared as inputs for a computer-based regional traffic simulation model.

**U.S. Department of Commerce, Bureau of the Census** A source of decennial census data on population, housing and employment used to establish data trends and base year conditions.

**Commonwealth of Massachusetts, Division of Employment and Training** A source of annual covered employment data compiled at the municipal level.

**Land Use: 1971 and 1985** Land use data for 21 land use categories compiled from aerial photography by the Regional Mapping Project at the University of Massachusetts. Often referred to as Mac Connell land use after Professor William Mac Connell of the Dept. of Forestry.

**Department of Housing and Community Development** State agency providing data on the percentage of affordable housing units by municipality based on the number of affordable units (1997) and total units (1990).

**Chapter 40B of the Massachusetts General Laws** Legislation enacted by the state in 1955 enabling municipalities to plan jointly.

**Chapter 41, Section 81P of the Massachusetts General Laws** A section in the Subdivision Control Law allowing property owners to subdivide their land by the use of "Approval Not Required" plans.

**Regional Study Development Plan: A Future Spatial Policy Guide** The first comprehensive plan for the central Massachusetts region prepared in 1970.

**Development Framework: A Guide for Growth and Change in Central Massachusetts** The Development Framework planning process included the following regional profile reports:

**Population** An overview of past and present trends in selected social and economic characteristics of the region.

**Environment** A summary of regional environmental features and an assessment of their possible constraint on growth.

**Infrastructure** An inventory of existing water, wastewater and refuse disposal facilities and a region-wide understanding of their capacity and possible limitations on future growth.

**Economy** A study of the strengths and weaknesses of the regional economy with strategies for capitalizing on the strengths and minimizing the weaknesses.

**Land Use** (Should this profile be included since it wasn't published?)

**Worcester Area Regionalism Education Project** A nonprofit corporation established to explore regional solutions in such areas as mutual purchasing, service delivery, economic development and regional identity.

## **Central Massachusetts Metropolitan Planning**

**Organization** A federally mandated transportation body comprised of the Massachusetts Executive Office of Transportation and Construction, Massachusetts Highway

Department, Worcester Regional Transit Authority and Central Massachusetts Regional Planning Commission.

**Massachusetts Association of Regional Planning Agencies** An organization representing the thirteen regional planning agencies in Massachusetts.

**Blackstone River Valley National Heritage Corridor** A 46-mile corridor, affiliated with the National Park System, established by Congress in 1986 and stretching the entire length of the Blackstone River from Worcester, MA to Providence, RI.

**Regional Development Suitability Model** A computer model for analyzing the interplay of numerous development factors to identify suitability for different land uses.

**Cape Cod Commission** A regional planning agency with special authority to conduct formal reviews of development projects exceeding specific thresholds and deemed "developments of regional impact" (DRIs).

**Worcester Regional Transit Authority** A regional transit authority providing both fixed route bus and paratransit services to 37 communities in central Massachusetts.

**Central Massachusetts Economic Development Authority** An economic development authority established under state enabling legislation in 1995 to address "brownfields" redevelopment issues on a regional basis.

**Devens Commerce Center** A 4,400 acre site at the former Ft. Devens military base under development as a modern industrial and technology-intensive business park.

**Agricultural Preservation Restriction Program** A program of the Massachusetts Department of Agriculture where the state purchases development rights of farmland to permanently preserve land for agricultural use.

**Chapter 61A of the Massachusetts General Laws** Legislation allowing communities to assess land use at its value for agriculture in order to lower property taxes.

**U.S. Department of the Defense's Financial Management Training Center** A training center for Department of Defense personnel located in the former American Optical Company facility in Southbridge

**Massachusetts Municipal Association** A nonprofit association of cities and towns bringing municipal officials together to establish and advocate unified policies and to share information on improving service delivery.

**I-495 Growth and Shared Solutions Initiative** A joint planning initiative of representatives from the business community, local government, state agencies and environmental groups to ensure economically sustainable and environmentally sound growth in the I-495 Corridor.

# SPRAWL: WHAT EXACTLY DOES IT MEAN?

*A Survey of Public Opinion by the  
Central Massachusetts Regional Planning Commission*

Dear Participant:

Recently, as part of CMRPC's Development Framework project, staff concluded after extensive analysis of land use patterns and zoning coverages that "sprawl" was this region's #1 enemy. We are not the only regional planning agency to flag this nemesis; it's occurring in the southeastern part of the state, say local officials, at an alarming pace. Furthermore, protests over the loss of agricultural land and open space, and the spiraling costs of public services and infrastructure are at a boiling point in many other states leading Neal Peirce, a noted columnist on urban affairs, to label the fight against sprawl "A New Civil Rights Movement".

Sprawl, say the experts, is one of the nation's most significant land use issues. Their warnings are usually summed up in statements like - "The cancer is growing"; "The bill will be due someday on sprawl, and it will be huge" or "We're concentrating our poverty and dispersing our wealth". But, ask planners what they really mean when they vilify sprawl and you'll likely get a different answer from each of them. There seems to be no precise definition or criteria to help decide what sprawl is or is not, only generalizations about its deleterious effects.

Randall Arendt, while at the Center for Rural Massachusetts (UMass, Amherst), pointed out that today's zoning policies not only fail to preserve our landscapes, but actually mandate

sprawl. How can this be? When municipal officials gather to discuss this issue, as they did two years ago at a Blackstone Valley charrette and again at CMRPC's recent subregional meetings on a 2020 Vision for the region, their complaints about today's growth are invariably the same: loss of open space, mounting traffic congestion, spreading of low density housing and a declining quality of life. Yet, there is not one community in this region that has stood up in unison and said, enough is enough! Is it that local leaders do not know how to cure this disease or is sprawl simply more acceptable than the expert's alternative of compact higher-density growth?

To better understand the concept of sprawl and why it is that this growth pattern remains the dominant land use policy, the Central Massachusetts Regional Planning is soliciting your opinion. Please assist us by completing this short ten-question survey and returning it to us at your earliest convenience. Approximately 300 people like you, representing local government or the business community in central Massachusetts, have been asked to participate. The results and our analysis of what they mean will be reported to you in a special addition of CMRPC's newsletter, "Regionally Noted".

Thank you for your help and continued support.

William H. Newton, AICP  
Executive Director

## *Survey Results - Numeric*

1. What type of community do you live in? Rural (under 5,000 population) 27, Suburban (more than 5,000) 46, Urban (better than 75% developed) 5

2. How long have you lived in central Massachusetts? Long-time resident 69, Newcomer (5 years or less) 9

3. What group of survey participants do you represent? Planning Board 20, ZBA 4, Conservation 11, Chamber of Commerce 5, City/Town Planner 11, CMRPC Member 21, Board of Health 6

4. In your opinion, what condition(s) best characterize the idea of sprawl?

- a) Residential subdivisions on 2 acre lots or more 33
- b) One acre minimum residential zoning 26
- c) Residential/commercial development physically isolated from existing growth 32
- d) Strip commercial/business development along state highways 48
- e) Shopping mall or "big box" retail developments like WalMart 23

5. Is your answer to Q4. a problem in your community? Yes 38, No 36. If yes, please provide one or two examples (by type and location) that meets your test of sprawl.

6. Many of our highways are zoned for commercial/business development because it is thought the best location for attracting non-residential uses. When does this pattern of development become a major problem? CHOOSE THOSE THAT APPLY a) clutter of small businesses each with its own curb-cut 62, b) strip commercial stores 32, c) development of a "big

box" store 18, d) over abundance of the same commercial uses like gas stations or fast-food franchises 48

7. What would you recommend as the best way to control commercial/business development along highways?

- a) limit businesses to one curb-cut 10, b) require commercial clusters with one entrance-exit 44, c) develop service roads 38, d) permit higher-density commercial nodes 22, e) enact strict design standards 33

8. Is your community's open, undeveloped areas zoned for low-density residential use (one unit/per acre or more)?

Yes 58, No 15 If yes, what factors influenced this decision? a) no public sewer 46, b) no public water 34,

c) sensitive environmental features 17, d) by community choice 42

9. What, in your mind, is the greatest evil of sprawl? a) public service costs 14, b) demand on education costs 19, c) loss of open space/agriculture 42, d) community character 35, e) commercial/business striping of local highways 7, f) heavy reliance on automobile 22, g) inefficient use of land 33

10. In your opinion, what is the best alternative to residential sprawl? a) compact development that can accommodate apartments and condominiums 8, b) cluster housing developments 31, c) mixed-use developments 22, d) purchase of open space 34, e) urban growth boundaries 13, f) mandatory comprehensive planning as a prerequisite to zoning 42.



## *Survey Results - Percentage*

1. What type of community do you live in? Rural (under 5,000 population) 35%, Suburban (more than 5,000) 59%, Urban (better than 75% developed) 6%

2. How long have you lived in central Massachusetts? Long-time resident 88%, Newcomer (5 years or less) 12%

3. What group of survey participants do you represent? Planning Board 26%, ZBA 5%, Conservation Commission 14%, Chamber of Commerce 6%, City/Town Planner 14%, CMRPC Member 27%, Board of Health 8%

4. In your opinion, what condition(s) best characterize the idea of sprawl?  
a) Residential subdivisions on 2 acre lots or more 20%  
b) One acre minimum residential zoning 16%  
c) Residential/commercial development physically isolated from existing growth 20%  
d) Strip commercial/business development along state highways 30%  
e) Shopping mall or "big box" retail developments like WalMart 14%

5. Is your answer to Q4 a problem in your community? Yes 51%, No 49%. If yes, please provide one or two examples (by type and location) that meet your test of sprawl

6. Many of our highways are zoned for commercial/business development because it is thought the best location for attracting non-residential uses. When does this pattern of development become a major problem? CHOOSE THOSE THAT APPLY a) clutter of small businesses each with its own curb-cut 39%, b) strip commercial stores 20%, c) development of a "big box" store 11%, d) over abundance of the same commercial uses like gas stations or fast-food franchises 30%

7. What would you recommend as the best way to control commercial/-business development along highways? a) limit businesses to one curb-cut 7%, b) require commercial clusters with one entrance-exit 30%, c) develop service roads 26%, d) permit higher-density commercial nodes 15%, e) enact strict design standards 22%

8. Is your community's open, undeveloped areas zoned for low-density residential use (one unit/per acre or more)? Yes 79%, No 21%. If yes, what factors influenced this decision? a) no public sewer 33%, b) no public water 25%, c) sensitive environmental features 12%, d) by community choice 30%

9. What, in your mind, is the greatest evil of sprawl? a) public service costs 8%, b) demand on education costs 11%, c) loss of open space/-agriculture 25%, d) community character 20%, e) commercial/-business striping of local highways 4%, f) heavy reliance on automobile 13%, g) inefficient use of land 19%

10. In your opinion, what is the best alternative to residential sprawl? a) compact development that can accommodate apartments and condominiums 5%, b) cluster housing developments 21%, c) mixed-use developments 14%, d) purchase of open space 23%, e) urban growth boundaries 9%, f) mandatory comprehensive planning as a prerequisite to zoning 28%



# THE COMMONWEALTH OF MASSACHUSETTS

## EXECUTIVE DEPARTMENT

STATE HOUSE • BOSTON 02133

— (617) 727-3400

WILLIAM F. WELD  
GOVERNOR

ARGEO PAUL CELLUCCI  
DEPUTY GOVERNOR

96 APR 24 AM 10:17

By His Excellency

WILLIAM F. WELD  
GOVERNOR

EXECUTIVE ORDER NO. 385

### PLANNING FOR GROWTH

WHEREAS, the Citizens of the Commonwealth of Massachusetts have a constitutional "right to clean air and water . . . and the natural, scenic, historic, and aesthetic qualities of their environment" (hereafter "environmental quality and resources");

WHEREAS, the ability to enjoy, protect and preserve environmental quality and resources depends to an important degree on the economic well-being of the Commonwealth, and the ability to sustain long term economic well-being depends to an important degree on the protection and preservation of environmental quality and resources;

WHEREAS, conflict between environmental quality and economic activity ultimately puts at risk environmental resources as well as economic opportunity; thus threatening, for example, public water supplies, clean air, swimmable and fishable waters, flood protection, open space, agricultural lands, historic sites, and community character; but also affecting the timely provision of needed infrastructure, financial assistance and regulatory approvals for appropriately sited and designed development;

WHEREAS, such conflict can be avoided to a great extent through proactive and coordinated planning oriented towards both resource protection and sustainable economic activity, known as growth management; and

WHEREAS, in the absence of effective growth management, the burden of balancing economic development with resource protection is not spread equitably but falls disproportionately on proponents of the most recent development, as well as on communities lacking sufficient means to protect their resources and guide development;

NOW, THEREFORE, I, WILLIAM F. WELD, Governor of the Commonwealth of Massachusetts, by virtue of the authority vested in me as Supreme Executive Magistrate, do hereby order as follows:

### Declaration of Policy

Section 1. The Commonwealth shall actively promote sustainable economic development in the form of; a) economic activity and growth which is supported by adequate infrastructure and which does not result in, or contribute to, avoidable loss of environmental quality and resources, and b) infrastructure development designed to minimize the adverse environmental impact of economic activity.

Section 2. The dual objectives of resource protection and sustainable development shall be pursued as much as possible through means other than new rules and regulations, such as proactive planning, interagency coordination, incentives and assistance to interested private parties as well as local and regional governments and organizations, and streamlining of regulatory processes so as to facilitate economic activity consistent with this policy.

### Implementation

Section 3. All agencies, departments, boards, commissions, authorities and instrumentalities of the Commonwealth (hereafter "Agencies") shall evaluate the effect of their current regulations, policies, plans and practices on their and others' ability to facilitate sustainable economic development and to preserve environmental quality and resources, and shall adopt changes to the extent necessary to effectively contribute to the attainment of these objectives; provided that no such change shall infringe on the jurisdiction or authority of municipal, county, regional or Federal governments.

Section 4. All Agencies shall promote, assist, and discharge their duties with full consideration of local or regional growth management plans that have been formally accepted by the affected municipalities.

Section 5. All Agencies shall promote, assist and pursue the rehabilitation and revitalization of infrastructure, structures, sites, and areas previously developed and still suitable for economic (re)use. Such rehabilitation and revitalization, where practicable, shall be deemed preferable over construction of new facilities or development of areas with significant value in terms of environmental quality and resources, unless otherwise provided and supported by local or regional growth management plans.

Section 6. Agencies responsible for planning, funding, constructing or permitting infrastructure facilities such as transportation, water supply, waste water treatment and disposal, and solid waste management facilities, shall actively engage in the



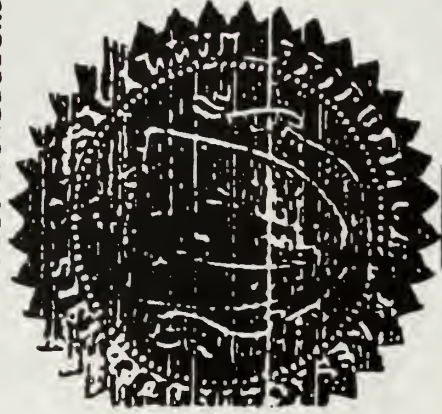
development of regional infrastructure plans, if not already in place, in coordination with other Agencies and with local and regional planning entities.

Section 7. Agencies responsible for siting, designing, funding, constructing or permitting of infrastructure projects, public facilities or private development shall seek to minimize unnecessary loss or depletion of environmental quality and resources that might result from such activity and shall, as part of each final funding or permitting decision, make an express finding as to the consistency of such decision with the provisions of this Order.

Section 8. The Executive Office of Environmental Affairs shall consider the consistency of Agency actions with the provisions of this Order in its review of any project requiring the filing of an Environmental Notification Form pursuant to the Massachusetts Environmental Policy Act.

Section 9. Each Agency affected by this Order shall, within one year following the date of this Order and thereafter on an annual basis, report on the status and effectiveness of its compliance with this Order. Such reports shall be noticed and made available for public comment and review.

Section 10. The Secretary of the Executive Office of Environmental Affairs shall, within six months following the date of this Order, issue a guidance document for use by the Agencies in preparing their annual reports pursuant to the preceding section; and shall, within six months following the due date for the Agencies' reports and based on a review of said reports and of public comments received, submit to me a summary report and recommendations for the continued implementation of this Order.



Given at the Executive Chamber  
in Boston this 23<sup>rd</sup> day of April:  
in the year one thousand nine  
hundred and ninety-six.

*W. M. F. Weld*

William F. Weld, Governor  
Commonwealth of Massachusetts

*William Francis Galvin*

William Francis Galvin  
Secretary of the Commonwealth

GOD SAVE THE COMMONWEALTH OF MASSACHUSETTS



## MUNICIPAL PLANS PREPARED SINCE 1985

Auburn	Master Plan, 1987	Barre	Strategic Growth Plan, 1995
Berlin	In Progress	Blackstone	Master Plan, 1992
Boylston	In Progress	Charlton	In Progress
Douglas	Master Plan, 1998	Dudley	In Progress
Grafton	In Progress	Holden	Land Use Plan, 1987
Hopedale	Master Plan, 1994	Leicester	In Progress
Mendon	Growth Mgt. Strategy, 1996	Millbury	Master Plan, 1998
Millville	Land Use Plan, 1995	Northborough	Master Plan, 1998
Northbridge	Master Plan, 1990	Oxford	Land Use Plan, 1985
Princeton	Land Use Plan, 1991	Rutland	Master Plan, 1997
Sturbridge	Master Plan, 1988	Sutton	Master Plan, 1992
Upton	Master Plan Underway	Webster	Master Plan, 1989
West Boylston	Land Use Plan, 1988	West Brookfield	Growth Study, 1988
Worcester	Master Plan, 1987		

# DEVELOPMENT SUITABILITY MODEL METHODOLOGY

In 1994, CMRPC received a Municipal Incentive Grant (MIG) from the Mass. Department of Housing and Community Development (DHCD) to prepare a computerized land use model. After two years of development, and with the assistance of staff from Clark University in Worcester, CMRPC created the "Development Suitability Model". Running under Clark's *Idrisi* software, we believe it is the first true land use model ever developed. The Model identifies land most suitable for development based on a variety of cultural, environmental, and infrastructure factors. While no one can actually predict which lands will be developed, by identifying areas that are most suitable for different land uses, the Model creates a powerful tool for understanding long range development trends.

The Model is a "raster-based" GIS, which uses a series of rows and columns to create "pixels", or squares, of 30 meters per side. Each pixel is 900 sq. meters, or about 0.222 acres. Thus, in our planning district of 960 square miles, there are about 2.8 million pixels in the Model. First, land that is not available for development is removed from analysis; this includes previously developed land, permanently protected open space, wetlands, 100-year floodplains, water bodies, and lands in zone 1 of public water supplies. Secondly, the Model assesses numerous characteristics that influence

development location decisions on the remaining vacant land. These "factors" are quantified, mapped, and digitized as a series of overlays for computer analysis. For each land use scenario being modeled, planners assign weights to each factor depending upon its agreed-upon importance for a particular type of development. For each pixel of vacant land in the region, the Model tabulates the scores of all factors and assigns a final score. Lands with the highest scores are deemed most suitable for development. A major strength of the Model is that by simply changing weights, numerous land use alternatives can be modeled and compared, with the results helping to shape public policy decisions.

CMRPC modeled "conventional" development scenarios for residential, office/industrial, and retail land uses; placing greater emphasis upon infrastructure considerations also created "compact" scenarios for each land use type. The factors and weights assigned for the three conventional scenarios are listed below. The weights were developed through a series of discussions with planners, developers, and local officials. For example, the quality of a community's school system is a very important consideration for housing development, while proximity to interchanges is deemed most important for industrial and office development.

Development Suitability Model Factor Weights: Conventional Development Scenarios			
Factor	Residential	Office/ Industrial	Retail
Proximity to Water Lines	3.5%	11.0%	11.0%
Proximity to Sewer Lines	2.5%	11.2%	6.0%
Additional Water Capacity	1.5%	7.1%	3.0%
Additional Sewer Capacity	1.5%	7.0%	1.0%
Proximity to Major Roads	21.0%	23.1%	32.0%
Proximity to Highway Intersections	5.0%	29.4%	8.0%
Travel Time to Worcester	15.0%	2.2%	0%
Municipal Population	2.0%	1.0%	20.0%
School Rating	18.0%	0.8%	0%
Presence of Steep Slopes	15.0%	4.2%	8.0%
Proximity to Metropolitan Areas Outside the Region	15.0%	3.0%	0%
Median Household Income	0%	0%	11.0%
Total	100%	100%	100%

The subregional maps contained in this report display the results of the conventional development scenario. The areas shown as "most suitable land" on the maps represent a combination of the three scenarios. The acreages of most

suitable land displayed on these maps are shown below for each subregion. Because Worcester is largely developed, it was excluded from the Model.







